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The impacts of living alone on older women's health and wellbeing in the UK and beyond: A scoping review.

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The Health and Well-being of Older Women Living Alone in the United Kingdom and Beyond: A Scoping Review

Abstract

In the United Kingdom (UK), as in other Western countries, women are more likely to live alone in later life than men. Social factors such as household composition have been shown to affect health and well-being as we age. The health and well-being of older women who live alone are of interest to researchers, care providers, health organizations and policymakers alike.

This article contributes to the literature by detailing a scoping review, establishing the current evidence in this field. Starting with the background and context for the review, it highlights key theoretical and demographic points. The methodology is detailed before drawing together existing empirical evidence. Finally, gaps in the literature and areas for future research are highlighted.

Keywords: Older women, Living alone, Living arrangements, UK, Health and wellbeing, Aging, Later life, Determinants of health.

Introduction

This article presents the results of a scoping review carried out to examine the current state of literature regarding the health and well-being of older women who live alone in the UK. The objectives were to answer the following questions: A) What is currently known about the determinants of health in this population? B) What is already known about the relationship between household composition and health and well-being outcomes? C) What are the implications for practice, policy and research?

The article starts by setting out the purpose and context for the review. It continues by describing the method used to carry out the search, including rationale for a scoping methodology and search terms. The empirical evidence is discussed, arranged into subsections of the primary determinants of health. A conceptual model is proposed as a point of reference for the existing literature and from which to develop further research. Finally, conclusions are drawn, including implications for practice, policy and future research.

*Background*

As the global population ages, it is of increasing importance to understand determinants of health and well-being in later life. As a sub-population, women who live alone in the UK are of interest for several reasons. Aging has been shown to have gendered differences, affected by the resources and inequalities with which women enter later life (Gaymu and Springer, 2012; Arber et al., 2003). Social resources in later life are increasingly of interest; household composition is one facet of this and living alone is common in this population. The UK is typical of many developed countries in its increased life expectancies. It has also experienced significant social and legislative changes within the last century which are typical of many developed countries. This makes it a suitable site for research, the findings of which are relevant further afield.

*Definitions*

For transparency and consistency some definitions are indicated. Living alone was defined as a single person household. The literature indicated some overlap in the use of the terms ’living alone’ and ‘social isolation’ but it did not seem helpful to equate the two concepts (Smith and Victor, 2018). Health and well-being are both acknowledged to be nebulous terms. For the purpose of this review, health was considered in terms of any commonly used health outcome, mortality, service use or standardized outcome measures (Karicha et al., 2007, Lee and Son Hong, 2016). Well-being can be measured objectively such as with measures of socio-economic security or subjectively with eudemonic or hedonic aspects considered. This review included studies which referred to well-being explicitly or which used measures of related concepts such as life satisfaction (Gaymu and Springer, 2012; Khan et al., 2018).

*Demographics of ageing*

The changes to the size and nature of the global population are well-recognized (Christensen et al., 2009; Khan, 2018). These changes have significant implications for how we think about managing the requirements of those in later life (Caley and Sidhu, 2011; Klijs 2012; WHO 2016).

To develop effective policy and intervention for later life, the needs and experiences of the older adults must be understood. Research examines the determinants of health and well-being in later life in addition to assessing the efficacy of interventions aimed at increasing health and well-being (Victor, 2004; Cattan et al., 2005; British Medical Association, 2016). Within this field it is becoming more widely acknowledged that the determinants of health and well-being in later life are beyond those previously recognized by bio-determinist theories which tended to dominate earlier gerontological work. Wider determinants of health have been shown to include education, socio-economic status, life-style choices, health behaviors and political-economic factors (Victor, 2004; Marmot et al., 2010).

The effect of social resources on health outcomes in later life is of particular interest. In the UK, a third of those aged 80+ years reported they feel lonely on a daily basis (Thomas, 2015) and research has made headlines dubbing Britain the loneliest country in Europe raising concerns regarding the impact this has on individuals’ health (Orr, 2014; Holt-Lunstadt et al., 2015; Smith and Victor, 2018). The interaction of objective measures of social contact and perceived quality of social support has been an important development in understanding social resources in later life (Cattan et al., 2005; Victor and Scharf, 2005). One aspect of social support is household status or living arrangements; living alone is an increasing phenomenon globally across the life course and appears to be more common for women than men in later life (Chandler et al., 2004; Office for National Statistics, 2015; Snell, 2017). Living alone cannot be said to lead inevitably to poorer social support but it has implications for the level of psychological and practical support immediately on hand in later life.

The effect of household composition on health outcomes is not yet fully understood (Khan, Hafford-Letchfield and Lambert, 2018). Women are more likely to live alone in later life and are subject to inequalities across life spheres which can cumulate in later life, affecting both living arrangements and health (Khan et al., 2018; Weissman and Russell, 2018).

*Theoretical Context*

The theoretical work which touches on this topic crosses several disciplinary boundaries. The fields of sociology, medicine, gerontology, feminism all address this population in some way. Detailed histories of this are available elsewhere (Victor, 2004; Sasser and Moody, 2018) but presented here is an overview of key ideas within which to situate the literature.

As the understanding of the determinants of health in later life are better understood, taking a life course approach to the topic is becoming more widely used. The culmination of resources and opportunities over a life course can influence health and well-being experienced in later life. Research has indicated the importance of life course trajectories; for example, in this population, the multiple ways in which women may come to live alone in later life are important to consider in addition to household context alone.

Taking a life course approach also allows for a consideration of wider determinants of health, beyond the traditional medical model of genetics and health behaviors. Political-economic and critical feminist gerontological theories of aging both frame the individual life course within a wider context which influences health. Political-Economic theories acknowledge the role of political and economic forces in shaping health and well-being (Arber, Davidson and Ginn, 2003; Luken and Vaughan, 2003; Victor, 2004). Policies reflect social assumptions and political priorities which can formalize unacknowledged values, contributing to inequalities throughout the life course (Estes, Biggs and Phillipson, 2003; Victor, 2003; Band-Winterstein and Manchik-Rimon, 2014). Recent UK public health publications promote a healthy, independent later life; while this encourages positive health behaviors and potentially reduces dependence in later life, it is criticized as shifting the blame for poor health in later life from institutional or social causes to the individual thereby associating poor health with a moral failing (Bulow, 2014; Public Health England, 2016; Department of Health and Social Care, 2018). By prizing independence and productivity, policies which encourage employment in later life could be viewed as promoting a capitalist vision of later life whereby a person’s value is in their labor value (Estes et al., 2003). This is relevant for women, who traditionally carry out much of the unpaid care labor and experience interrupted earnings due to child-rearing.

Critical Feminist Gerontological theory highlights the particular nature of aging for women (Victor, 2004). Gender differences in the ways aging is experienced are well-acknowledged (Dwyer et al., 2000; Gaymu and Springer, 2012), however, feminist and gerontological literature have only recently overlapped. Recent years have seen an acknowledgement of the double inequalities faced by older women (Arber et al., 2003). Theory and research developed within an uncritical context perpetuates attitudes which posit women and older adults as ‘other’, reinforcing a younger, masculine norm (de Beauvoir 1953; Luken and Vaughan, 2003).

Women are often vulnerable to Western, post-industrial attitudes to aging which, prizing youth, devalues later life (Minkler, 1996). This is reflected in media presentation of older women and gender-blindness of policy (Luken and Vaughan, 2003; Freixas, Luque and Reina, 2012; Foster and Walker, 2013). Evidence points to myriad ways in which aging differs for women. Women live longer on average, earn less when employed and experience interrupted employment for child-rearing or other caring work, all of which have financial implications for retirement (Estes, 2007; Crespi et al., 2015). Women’s societal role has changed significantly in the last century, particularly within the UK. Their place in the labor market, access to contraception and abortion, the increasing prevalence of divorce and changing attitudes to non-heteronormative households all mean that women currently in retirement age are living very different lives to that of earlier generations. These changes have meant that the experience of aging for this population and the ways in which these factors affect health and well-being in later life are all relatively unknown and require further research.

Methods

A scoping review is most often used when considering a broad area of research and in identifying the nature of existing knowledge, in turn identifying gaps in the literature and areas for further research (Tricco et al., 2018). The starting point for this review was the question ‘What is known about the health and well-being of older women living alone in the UK?’ The search was completed using the databases CINAHL, Medline, and Academic Search Elite. Initial search terms were: ‘older women’, elderly’, ‘living alone’, ‘lone-dwelling’, ‘health’, and ‘well-being’. This was then expanded to include ‘household composition’, ‘living arrangements’, and ‘cohabitation’ based on key terms in the early findings.

*Inclusion criteria*

Papers were required to focus on older populations, either older women exclusively or to include comparisons between gender. An exact age limit was not pre-determined as studies tend to vary but the papers needed to use terms such as older, elderly or later life. Specific ethnic or SES groups were not pre-determined either: as a scoping review the intention was to address all women living alone. Both published and unpublished research were searched and both qualitative and quantitative methodologies included.

*Exclusion criteria*

No study types were excluded a priori to the search although papers which repeated or appeared to repackage results published elsewhere were excluded. In screening the material, articles which were not felt to meet the objectives of this review were excluded such as those which specifically assessed the efficacy of a healthcare intervention or those which examined the routes which lead to women living alone in later life. Only English language publications were reviewed.

Literature dealing exclusively with older women who live alone within the UK was limited. Therefore, the search was broadened to include literature beyond the UK which examined determinants of health and well-being in later life with an emphasis on household status, gender and/or social resources. As is usual in such exercises, the grey literature, reference lists of found articles and Google Scholar were also used to extend the search. A summary of results can be seen in Figure 1.

The final selection of articles was reviewed. Thematic analysis was used to draw out key findings from each paper individually which were coded. These findings were then pooled and grouped into key themes. Overall, studies tended to examine determinants of health which could be grouped into seven themes: Socio-economic status (SES), social capital (including household composition), neighborhood and housing factors, ethnicity and immigration status, gender inequalities, socio-cultural environments and self-efficacy or perceived control. The results are presented below, commencing with a brief description of the found data before discussing each of these seven themes.

<Insert Figure 1 here>

Results

The aim of this paper was to examine the existing literature regarding the nature of the health and wellbeing of older women in the UK. The objectives were to find out what is already known about the determinants of health in this population including the role which household composition plays in determining health and wellbeing in older women. Implications for policy and practice were also considered. Due to a limited number of papers based in the UK the search was broadened to include international publications.

The results indicate that household composition has been linked with variations in health and wellbeing. However, cultural and socioeconomic variables are significant factors in shaping the health and wellbeing of older women who live alone and how they experience later life.

*Characteristics of resulting papers*

The resulting articles were broad in scope, date and country of origin. Only five research papers and two theoretical papers were found from the UK; once extended, the search yielded many more international works: the USA was over-represented; perhaps a consequence of the limitations an English-language search. Papers mainly dated from 2008 (the decade preceding the search, n=37) and 10 prior to 2000. Quantitative research dominated the findings as Figure 1 illustrates. These tended to examine determinants of health for older adults, many considered household composition as a potential determinant (Hughes and Waite, 2002; Gaymu and Springer, 2012; Chiu, 2018), whereas others focused on health and well-being outcomes for those living alone (Chou et al., 2006; Petry, 2003; Foster and Neville, 2010). The qualitative works tended to focus on a particular sub-group of women living alone such as those post-surgery or with diagnoses of dementia (Robinson, 2002; De Witt, Ploeg and Black, 2011).

***Empirical Evidence***

The experience and quality of later life varies significantly across the globe. Some factors are consistently shown to be of importance in the literature, although with variations in terms of the extent of the effect between countries and cultures. The evidence concerning the health and well-being of older women living alone in the UK is relatively sparse. A few pieces of research touch on the topic but there is very little exploring the phenomenon in depth. Living alone within the UK is on the increase (Snell, 2017), and for older adults it is considered a health risk despite little understanding as to the mechanism (Karicha et al., 2007). The determinants of health for older women within the UK literature are generally consistent with those in the global literature but the specific experience of women who live alone in later life in the UK is underexplored.

*Socio-economic status (SES)*

Socio-economic status can be measured by income or wealth and is often predictive of health outcomes across the life course and in later life (Marmot et al., 2010; Lukaschek et al., 2017). Several mechanisms explain this, such as access to a better diet, housing conditions, medical treatment and social support. It also determines a person’s place in society, shapes how they are treated and in turn can affect how they see themselves. There is also an element of reverse causality in terms of the relationship between health and financial security; while a lower income can lead to poorer health, the added costs of poor health, resulting costs and reduced ability to earn an income can lead to financial hardship (Sacker et al., 2017). The evidence found in this review is consistent with existing research, indicating the importance of SES in determining health outcomes. In some studies, lower income was more common in men than women in later life and was associated with increased reliance on informal support (Ryser and Halseth, 2011). Lower income was also associated reduced life satisfaction (Kim and Sok, 2013). Education is consistently shown to be associated with better health and has been shown to be associated with increased life expectancy and disability-free life expectancy.

*Social capital and household composition*

Social support has been consistently demonstrated to have a significant impact on health outcomes across the globe (Dean et al., 1992; Pinquart and Sorensen, 2001; Hays, 2002; Eshbaugh, 2009; Pimouguet et al., 2016). There has been a widespread interest in loneliness in later life and the potentially damaging effects on health and function (Bergland and Engedal, 2011; De Jong Gierveld, Keating and Fast 2015; Teguo et al., 2016; Saito et al., 2017; Zali et al, 2017; Beller and Wagner, 2018; Shaw et al., 2018), while perceiving oneself to be well-supported has been linked with increased morale (Collins and Paul, 1994).

Evidence continues to point to the importance of the perceived quality of the relationship rather than an objective measure of contact. Friendships have consistently been shown to be important in later life, as is the perceived ability to access support if required (Magaziner and Cadigan, 1989; Banks, Hayes and Hill, 2009; Hank and Wagner, 2013). Social contact appeared valued for its maintenance of routine (Cederbom et al., 2014) and in those living alone, lack of companionship was a concern at times (Eshbaugh, 2008). The use of the internet to access social support has been shown to be associated with better health outcomes (Khan et al., 2018) and may help to maintain contact in those less mobile. Differences between health outcomes in those living alone and those who identified as lonely, underline the importance of not conflating the two (Beller and Wagner, 2018).

In the UK, women are more likely to live alone than in other countries (Khan et al., 2018), and living alone has been shown to be associated with higher risk of poorer health outcomes (Kharicha et al., 2007). More widely, those living alone had poorer health outcomes when compared to those living with family (Sok and Yun, 2011), have been shown to be at higher risk of mortality (Teguo et al., 2016), institutionalization (Pimouguet et al, 2016), poorer physical health outcomes (Qu and Weston, 2003; Sarkar et al., 2012; Moncatar et al., 2019), reduced independence (Saito et al 2017), higher falls risk (Berland and Engedal, 2011), unmet care needs (Dunachik et al., 2019) and lower mood, self-esteem and life satisfaction (Chou et al 2006; Kim and Sok, 2011). Those living alone have also been shown to have reduced access to medical examinations and variations in pharmaceutical use (Cermakova et al., 2017).

There are some inconsistencies which perhaps highlight the importance of individual trajectories. Some studies have shown no difference in outcomes for women living alone (Juul Nilsson et al, 2007; Fujino and Matsuda, 2009). Once adjusted for age and falls history, women living alone and those with family showed no difference in levels of loneliness (Zali et al., 2017). Women living alone in later life have been shown to enjoy their independence and freedom although this may not account for more physically dependent or financially insecure populations (Cheng, 2006).

Evidence indicates that it is not enough to compare those living alone with those cohabiting as there are differences indicated between those living with partners and those living with children or others (Hank and Wagner, 2013; Kim and Fredrikssen-Goldsen, 2014). It is also important to consider reverse causality when considering the link between cohabitation and health outcomes; particularly in Western, individualistic societies older adults may only move in with relatives once they cannot manage living alone (Michael et al., 2001). Finally, the importance of negative transitions for example in the case of widowhood, is an important distinction within the literature (Stone, Evandrou and Falkingham, 2013).

These results support a life course approach in later life research, as objective measures of social contact do not explain outcomes relating to well-being and quality of life. In those who live alone, contact outside the household is important in maintaining social and psychological support. In retirement social contact can become problematic as often social support is related to the labor market (Victor and Scharf, 2005). Some research has pointed to technology as a way of improving social contact and, in turn, well-being (Sacker et al., 2017; Khan et al., 2018). Loneliness has been increasingly investigated in recent years (Smith and Victor, 2018) and has been shown to change in quality in later life (Qualter et al., 2015). The ways in which people respond to loneliness or other hardships in terms of their values or coping strategies are of interest, particularly in those who live alone. For example, the relationship between self-efficacy, social support and well-being is not considered in the current research.

What is clear from the existing literature within the UK is that women who live alone are a potentially vulnerable and growing population, the health and well-being of whom is not fully understood. Certain determinants of health have been established and supported in more general literature such as SES, but further research is needed on the specific determinants of health in this population.

*Neighborhood and housing*

The physical environment is acknowledged in UK policy as affecting health outcomes (Marmot et al, 2010). The findings of this review suggest this has only been considered in a small number of UK papers but have been found to be significantly related to health outcomes (Khan et al., 2018; Rolls et al., 2010). Other research suggests that the home environment can be both a positive support mechanism and a concern in terms of maintenance or obstacles (Barry et al., 2017). The subjective satisfaction of an individual with their housing is also noted to be a factor (Carp and Christensen, 1986; Grenier, 2005; Walker and Hiller, 2007; Toma, Hamer and Shankar, 2015). For women living alone it is suggested that suitability of housing can be the difference between a burden and a resource.

In terms of neighborhood, access to amenities and transport are both important factors for older women; the benefits to health and well-being could be suggested in terms of increased levels of independence with tasks such as shopping resulting in increased exercise levels and access to social contact (Dwyer et al., 2000; Walker and Hiller, 2007). For those living alone in later life, a neighborhood which is inaccessible or unsafe presents a further barrier to social support and enforces a higher level of dependency (Dwyer et al., 2000). The influence of rural versus urban locations has been considered (Khan et al., 2018) and access to transport (Morrissey, 1998) but neighborhood and housing have not been considered in relation to health and well-being outcomes particularly for those in later life who live alone in the UK.

*Ethnicity and immigrant status*

This review found little mention of the importance of ethnicity or immigration status in the UK literature on this population. In reviewing the literature more widely, consideration of ethnic minorities or the effects of ethnicity on later life, appears more prevalent in the United States and UK literature than in research from other parts of the world (Estes, 2004; Ryser and Halseth, 2011). Focusing on older women living alone, there is very little looking at the differences between ethnicities within diverse populations (Ulbrich and Bradsher, 1993; Sereny, 2011; Evandrou et al., 2016) but the evidence available does suggest differences both in the likelihood of living alone and the ways in which women experience living alone. There has also been some consideration of immigration statuses (Wilmoth and Chen, 2003) in relation to depressive symptoms in those living alone in later life, highlighting the differences in manifestations. What is particularly important is that older women who are part of an ethnic minority are at risk of a triple discrimination; that of their age, sex and ethnicity (Minkler, 1996; Estes, 2004) suggesting that further investigation is warranted of the ways in which this affects health and well-being in later life. Given the diversity in ethnicity and immigration status within the UK, these factors merit further investigation especially in relation to other factors such as social support.

*Gender and the accumulation of inequalities*

This review was carried out based on evidence indicating variations between genders in later life. This premise was confirmed by the findings. No UK studies were found which compared health outcomes of men and women in this context. Beyond the UK, studies indicated differences between men and women in terms of health and well-being outcomes in later life (Pizzetti et al., 2005; Hughes and Waite, 2002) and in terms of the importance of social capital (Gaymu and Springer, 2012; Saito et al., 2017). Women living alone were shown to be at risk of lower subjective well-being than men living alone (Lukaschek et al., 2017) and at higher risk of depression (Lin and Wang, 2011).

*Social and Cultural Environments*

Previous research consistently demonstrates that cultural expectations can affect factors contributing to health and well-being in later life and this is confirmed here. The expectations and norms of a culture are internalized over a lifetime and can shape how one experiences aspects of later life.

Variations in risks and experiences of aging have been indicated across European and Organization for Economic Co-operation and Development (OECD) countries pointing to cultural values and norms which shape later life (De Jong Gierveld and Van Tilburg, 1999; Bank et al., 2009). Other studies confirm that external expectations from society can affect the way in which individuals make sense of decision-making processes in later life and in turn how they might experience their well-being or quality of life (Petry, 2003; Band-Winterstein, and Manchik-Rimon, 2014). In societies which tend to value close family dependency such as in Asian cultures, living with family may be an expectation rather than a requirement, although within the same culture, this collective mentality may also be, for some, justification for living in residential care in order to reduce the perceived family burden (Dwyer et al., 2003; Qu and Weston, 2003; Lim and Ng, 2010).

Cultural environments vary in terms of the value and treatment of those in later life and can affect the nature and quality of intergenerational support in later life (Khan, 2014). Often these attitudes are shaped over generations and become embedded in policy, research and other discourse which reinforce value judgments and can result in direct or indirect discrimination (Luken and Vaughan, 2003). An example of this is policy around retirement age which can affect those of lower SES or women who have taken time from paid employed for child-rearing (Estes et al., 2003).

There is little empirical research addressing living alone in later life in the UK from this perspective, although theoretical work has begun to address it (Arber et al., 2003; Estes et al., 2003). It could be suggested that many of these influences are hard to assess or acknowledge given their subtle and pervasive nature. Some phenomenological studies may indicate such influences when considered critically (Frazer et al., 2011; Witt, Ploeg and Black, 2010) but this evidence is sparse, and the experience of later life remains underexplored.

*Self-efficacy and perceived control*

As noted in the literature regarding social support, subjective factors often mitigate the effects of objective measurements. In addition to satisfaction with social contact this extends to levels of perceived independence and choice. For example, an individual may require physical assistance with a task but if they feel involved in decision-making then they experience more independence and self-efficacy leading to better well-being (Cederbom et al., 2014). Studies have also shown that levels of self-efficacy can predict later reduction in function (de Leon et al., 1996). In this review, the theme of control was highlighted as important across the literature (Letvak, 1997; Cederbom et al., 2014). The importance of independence was consistently highlighted (Robinson, 2002; Cheng, 2006; De Witt, Ploeg and Black, 2011. Frazer et al., 2011, Lee et al., 2019) and was suggested to be more important for women than men when comparisons were made (Sun et al., 2007). This notion of self-efficacy was also evident in studies which showed the importance of being able to contribute something to life, indicating that better well-being was associated with meaningful interactions (Roberts and Cleveland, 2001; Foster and Neville, 2010). For those living alone, the issue of choice and control over living arrangements was also highlighted as important in contributing to feeling of well-being (Connidis, 1983; Magaziner et al., 1988; Sereny, 2011).

Psychological well-being has been linked more strongly to self-rated health than physical health in later life (French, Sargent-Cox and Luszcz, 2012) suggesting that physical decline in later life may impact less on well-being if an individual continues to perceive a level of control or self-efficacy over their daily life. As with the influence of societal expectations, self-efficacy is potentially difficult to measure but may hold some useful insights into how the experience of later life is shaped and in turn affects health outcomes. The experience of later life is under-represented in the literature but may have important implications for the health and well-being of those in later life and merits further investigation.

<Insert Figure 2 about here>

Discussion and Conclusion

Health and well-being are broad constructs. In considering the health and well-being of older women who live alone in the UK a scoping review was indicated. The literature examined has come from many disciplinary fields.

*Significance of findings*

The literature confirms well-known determinants of health and well-being such as SES and age are equally relevant for older women living alone in the UK. The consistent importance of adequate economic resources and other measures of SES such as education and housing are significant for any policymakers seeking to improve health and wellbeing in later life. Practical implications from the existing evidence also point to the importance of considering a life course perspective when planning interventions for this group. The heterogeneity of this subsection suggests that assumptions cannot be made regarding their needs. The growing evidence highlighting the importance of social factors underlines the importance of facilities which would support access to this; accessible transport or neighborhood services for example.

*Implications for future research*

The literature points to the potential vulnerabilities experienced by older women living alone in the UK and indicates the importance of further research examining their health and well-being (Karicha et al., 2007; Government Office for Science, 2016; Public Health England, 2016; Weissman and Russell, 2018).

Included in this scoping review are studies which consider variations in living arrangements and health for other populations (Sok and Yun, 2011; Kim and Fredrikssen-Goldsen, 2014) or examine a specific aspect of living alone for women, such as living alone with a diagnosis of dementia (Witt et al., 2010). Very little literature specifically explores the phenomenon of living alone for older women in the UK and the effect this has on their health and well-being. The existing population of older women living alone in the UK is a diverse group which has seen significant changes in social and political attitudes. While the existing research indicates some key areas, which may affect health and well-being in later life, further research is required to explore specific issues relating to this context. The research that exists does not address key areas such as the importance of ethnicity, immigration status, neighborhood, housing or the role of perceived self-efficacy, which could significantly improve understanding of this population.

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