

ROSEnet COST ACTION (CA 15122)

REDUCING OLD-AGE SOCIAL EXCLUSION:
COLLABORATIONS IN RESEARCH & POLICY

An Evidence Review of Exclusion from Social Relations: From Genes to the Environment

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Introduction

In this article we synthesise the evidence on the risks for and outcomes of exclusion from social relations, and the connections with other spheres or domains of social exclusion. Drawing on a recent scoping review of social exclusion literature by Walsh, Scharf and Keating (2017) in this article we conceptualise social relations as comprising social resources, social connections and social networks. By taking a holistic approach to reviewing the evidence on exclusion from social relations, we develop a conceptual model that allows us to identify gaps in knowledge and directions for future research.

Innovative solutions to the challenges of social exclusion require novel articulation of different kinds of knowledge, created by different disciplines. Therefore, we frame exclusion from social relations within a critical human ecological framework which frees us from the constrained boundaries of traditional disciplines. From the critical human ecology perspective the biological manifestation of the body, psychological traits and the socio-cultural, social structural, policy and physical environment fundamentally impact on the human experience, whilst simultaneously individuals shape or adapt their environments in both the physical and socio-cultural milieu in which they are situated.

In synthesizing the literature within the ecological framework, we address the questions:

1. *What are the individual risks for exclusion from social relations for older people?*
2. *What are the outcomes of exclusion from social relations?*
3. *What is the evidence for intersectionality between risks, psychosocial, socio-cultural, social-structural, policy and physical environments, and exclusion from social relations?*

We start by describing the current knowledge on risks to exclusion from social relations. Next, we discuss the connection between objective ratings and subjective assessments of social relations, and examine the evidence concerning the outcomes of exclusion. The evidence of macro-level influences on exclusion from social relations (i.e. norms and values; workforce demands and population turnover; environmental influences and neighbourhood exclusion) is summarised, as is the role of psychological resources and attributions in mediating or moderating exclusion from social relations and distal outcomes.

While the body of evidence on risks for, and outcomes of exclusion from social relations is fairly well developed, the corpus of research on intersectionality and diversity is relatively under-developed. We conclude by summarising the gaps in knowledge and in doing so, we identify a new conceptual model that describes the relationships and interconnectedness of the sub-dimensions (Walsh et al., 2017) in this domain. This conceptual model is used to pose some key research questions concerning diversity and intersectionality both within this domain of exclusion and between other domains of exclusion to help guide future research.

Methods

We start by reviewing the evidence concerning exclusion from social relations from the 114 papers that were identified by Walsh et al. (2017). We extend the review to include meta-analyses or systematic reviews of risks for fewer social relations, social resources or weaker social networks, even if these reviews did not explicitly refer to exclusion. The review also includes relevant articles identified by the international working group on exclusion from social relations.

Results

Individual risks for exclusion from social relations

Studies consistently report that certain individual characteristics or life events impact on exclusion from social relations. These risks for exclusion include personal attributes (gender, sexual orientation and marital status); biological and neurological factors; retirement, socio-economic status and exclusion from material resources; and migration.

Personal attributes: Gender, sexual orientation and marital status

In USA, research has demonstrated that women have more kin in the social circles, but that there is no difference between men and women in the non-kin members of their networks (McPherson, Smith-Lovin, & Brashears, 2006). While social isolation is more common for women than men (Wenger, Davies, Shahtahmasebi, & Scott, 1996), the differences are

largely due to differences in marital status with women more likely to be widowed and living alone.

Being married offers the greatest degree of protection against exclusion from social relations (De Jong Gierveld, Broese van Groenou, Hoogendoorn, & Smit, 2009). While spousal bereavement results in termination of a key relationship that usually provides an ‘exclusive, close, and intimate tie’ (Dykstra & Fokkema, 2007, p. 9), divorce and relationship breakdown can also have a negative impact on social interaction (Wenger, 1996). Consequently, widowhood and divorce are risk factors for exclusion from social relations (Dahlberg, Andersson, McKee, & Lennartsson, 2015; De Jong Gierveld, Van der Pas, & Keating, 2015; van Tilburg, Aartsen, & van der Pas, 2015).

Sexual orientation can also impact on exclusion from social relations. However, the research tends to emphasize intersectionality of sexual orientation, place and discrimination which is addressed below.

Biological and neurological risks: physical and cognitive health

Biological and neurological approaches often assess the influence of exclusion of social relations on negative health outcomes (see below, health and functioning). However, it is well documented that poor health is also a risk for exclusion from social relations: as a negative life event, poor health, impairment or pain impact on the ability to maintain usual lifestyles including customary levels of social interaction and can precipitate a decline in social relations (Bertoni, Celidoni, & Weber, 2015; Coyle, Steinman, & Chen, 2017; Creecy, 1985; Croda, 2015; Hilaria & Northcott, 2017; Slivinske, Fitch, & Morawski, 1996).

The association between genes, brain function, physical and cognitive health and exclusion from social relations has often been ignored by social scientists because these factors are frequently subsumed under the rubric of determinism. As exclusion from social relations and some of the outcomes of exclusion (e.g. quality of life, loneliness and social cohesion) are social constructs, they provide an excellent opportunity for social scientists to engage with theories and methods from the neurosciences, to raise hypotheses that can be tested. For example, successful social functioning requires an individual to be able to communicate with others, especially with respect to non-verbal communication, such as, the ability to decode facial emotional expressions (Bediou et al., 2009), attribute mental states to oneself and

others or to engage in mutual eye contact and joint social attention (Pfeiffer, Voogele, & Schilbach, 2013). These abilities (social cognition) have a biological basis in complex neural circuitry (Bediou et al., 2009). However, to date, most of the evidence concerning the role of psychophysics has not considered the implications in terms of exclusion from social relations (e.g. Tales, Muir, Bayer, & Snowden, 2002).

There is evidence to suggest that a socially integrated lifestyle (the converse of exclusion from social relations) protects against dementia and Alzheimer's disease in the older population (Bennett, Schneider, Tang, Arnold, & Wilson, 2006; Fratiglioni, Paillard-Borg, & Winblad, 2004; Saczynski et al., 2006; Wang, Karp, Winblad, & Fratiglioni, 2002). A meta-analysis found that less social interaction (rather than size or satisfaction with social network) increased the risk of dementia (Kuiper et al., 2015). Furthermore, other reviews (Cacioppo & Hawkley, 2009; Hawkley & Cacioppo, 2010; Kuiper et al., 2015) of research studies have demonstrated that loneliness (potentially an outcome of exclusion from social relations) can lead to impaired cognitive function and decline over time (Gow, Pattie, Whiteman, Whalley, & Deary, 2007; Tilvis et al., 2004; Wilson et al., 2007) and can increase the risk of dementia (Holwerda et al., 2014; Wilson et al., 2007).

Other biological or genetic factors may impact on fertility and contribute to involuntary childlessness and fewer social relations (Lechner, Bolman, & van Dalen, 2007). While the effect of involuntary childlessness, social relations and psychological distress has been studied in younger populations, the distinction between involuntary and voluntary childlessness (that is, exclusion versus choice) has not been made in the research with older populations (e.g. Albertini & Mencarini, 2012; Hank & Wagner, 2013; Klaus & Schnettler, 2016), with the notable exception of research by Gibney, Delaney, Codd and Fahey (2017) which used childhood health status as a proxy for involuntary childlessness. In general, in European studies it has been assumed that childlessness is involuntary, attributable to infertility or disruptions to marital status such as war (Gibney et al., 2017). Childlessness, as a deviation from cultural normative family forms, is discussed below.

Retirement, socio-economic status and exclusion from material resources

In the USA research has indicated that older people with higher education have more non-kin in networks and fewer kin than those with lower educational levels (McPherson et al., 2006).

Other authors found a correlation between socio-economic status and loss of network members in the USA: older people with a low socio-economic status were more likely to lose social relations through life events such as death and relationship breakdown, and less likely to match these losses with replacements than older people with a higher status (Cornwell, 2015). This may be because childhood socio-economic status shapes social engagement in later life (Hietanen, Aartsen, Lyyra, & Read, 2016). However, across a range of countries, material deprivation and poverty limits full participation in the social life of communities for older people, limiting opportunities to optimize and diversify social interaction, and contributes significantly to exclusion from social relations (Ajrouch, Blandon, & Antonucci, 2005; Ellwardt, Peter, Präg, & Steverink, 2014; Fokkema, De Jong Gierveld, & Dykstra, 2012; Lee, Hong, & Harm, 2014; Stephens, Alpass, & Towers, 2010; Tchernina & Tchernin, 2002).

Many Europeans enter retirement with more resources than previous generations. However, retirement precedes reduced economic productivity (Moffatt & Heaven, 2016) and can contribute to a decline in material resources which indirectly influence social relations. Research suggests that retirement also has a direct impact on social interaction, which may be gendered. In Australia, research has demonstrated that following retirement, older men experienced a decline in social relations while women had increased social relations (Patulny, 2009). Following retirement, it is important for retirees to develop meaningful social roles as these can have a potential positive effect on well-being (Heaven, Brown, White, Errington, & Moffatt, 2013). The difference in social relations observed between male and female retirees (e.g. Patulny, 2009) may be explained by the alternative social roles on which they can successfully draw. Men are more likely to solely identify with a paid role in employment that is abrogated on retirement, whereas women often have alternative identities to draw upon including caring and unpaid voluntary and community work (Duberley, Carmichael, & Szmigin, 2014). The active construction of a 'postwork' identity (Gilleard & Higgs, 2000) may help to counter the high likelihood of exclusion from social relations for retirees whose identities are closely bound to their work roles. However, to date, research on retirement planning has failed to address issues of identity and social roles that are crucial to address exclusion in this domain (Moffatt & Heaven, 2016).

Migration

Migration within or across national boundaries can impact upon and disrupt social and support networks comprising kin and non-kin (Ajrouch et al., 2005; Burholt, 2004a, 2004b; Burholt & Naylor, 2005; Burholt & Sardani, in press; De Jong Gierveld et al., 2015; Kreager, 2006; Treas & Batlova, 2009; Walters & Bartlett, 2009; Wenger et al., 1996). While within country migrants may take time to establish local social relations after relocation (Walters & Bartlett, 2009), for immigrants, developing new social networks in the country of settlement may be compromised by lack of language fluency (Rumbaut, 1997; Wong, Yoo, & Stewart, 2005).

Some research has indicated an intersectionality between gender and fluency of language for ethnic minority elders. In Europe, within immigrant groups there are gender differences in education and fluency in the national language of the host country (Burholt, 2004b), which negatively affect women's employment prospects. In turn, lower levels of employment (and language skills) impact on ethnic women's social relations with others outside of their particular ethnic group. Thus, intersectionalities of socio-economic status, culture and gender can result in exclusion from social relations (Burholt, 2004b; Keating & Scharf, 2012; Viruell-Fuentes, Miranda, & Abdulrahim, 2012). However, this Western interpretation of exclusion from social relations may not be applicable across cultures. Maynard, Afshar, Franks and Wray (2008) have argued that older women from ethnic minority groups prioritize shared within-group identities, language and culture linked to kinship roles, rather than valuing integration into society. This is discussed in more detail below, in relation to the influence of norms and values on exclusion from social relations.

Judgements concerning quality and quantity of relationships

Evidence suggests that good and extensive social relations with a range of people and groups including family, friends, neighbours and community groups foster social inclusion (Barnes, Blom, Cox, Lessof, & Walker, 2006). This suggests that both the quantity and quality of social relations are important and in order to understand these we need to consider both the objective and subjective experiences.

Perlman and Peplau (1981) described loneliness as an unpleasant and distressing phenomenon stemming from a discrepancy between individuals' desired and achieved levels of social relations. Objective measurements of social relationships (e.g. the size of network, frequency of contact, emotional or physical distance between friends, neighbours and relatives) are related to social connectedness or social isolation. Loneliness arises from a mismatch between actual and expected quality and frequency of social interaction, with potential sources of mismatch being associated with the risks identified above. Similarly, many authors have argued that it is the personal assessment and judgements concerning the quality and quantity of relationships that is important in determining other outcomes for the individual (e.g. Shiovitz-Ezra, 2015). Consequently, avoiding poor quality of life, lower levels of life satisfaction, and loneliness may entail addressing the mismatch, by adjusting either *expectations* regarding the quality and frequency of social relations or *achieved* quality and frequency of social relations to balance both elements.

Exclusion from social relations (objectively greater levels of social isolation) does not necessarily result in permanently poor outcomes. For example, the loneliness experienced after widowhood declines over time (Wenger et al., 1996), suggesting that older people adjust either their levels of social relations or expectations about types of relationships that are feasible or likely (Peplau & Caldwell, 1978). While there is a substantial body of work that uses a subjective assessment approach to describe how exclusion from social relations can lead to loneliness, it has not been rigorously tested in relation to other distal outcomes such as quality of life, life satisfaction, belonging, social cohesion and functioning, which are discussed below. In this respect, we believe that research should be mindful of the differences between social isolation and satisfaction with social relations, taking into account that these are not interchangeable concepts.

Outcomes of exclusion from social relations

The most commonly cited marker of exclusion from social relations is loneliness (Victor, Scambler, Bowling, & Bond, 2005). However, there is evidence that there are other outcomes that may be equally as important to the individual or society, but these are less well documented than loneliness.

Individual wellbeing: quality of life, life satisfaction, loneliness, belonging

Good social relations contribute to well-being and a good quality of life (Gallagher, 2012; Inder, 2012; Walsh, O Shea, & Scharf, 2012). Contact with relatives, neighbours and friends is related to quality of life and loneliness (Beech & Murray, 2013). One study of life satisfaction in people with reduced ADL capacity across six European countries suggests that personal rather than environmental factors are important for life satisfaction (Borg et al., 2008). This is supported by other research, which suggests that positive social relations are a significant source of satisfaction for older people (Gallagher, 2012; Yunong, 2012).

Belonging (social attachment to place or social insiderness) has been associated with inclusive local social relations (Burholt, 2006, 2012; Burholt & Naylor, 2005; Rowles, 1983). Belonging has also been correlated with loneliness (Beech & Murray, 2013), suggesting that there is a certain degree of overlap in terms of the outcomes of exclusion from social relations.

Exclusion from social relations (or social isolation) has been associated with greater levels of loneliness in the older population. There is an extensive body of evidence on this topic, which is too vast to capture in this synthesis. For summaries, see for example de Jong Gierveld van Tilburg and Dykstra (2006) and Victor, Scambler and Bond (2008; 2005).

Social opportunities

Exclusion from social relations can lead to reduced social opportunities such as employment, volunteering, or other forms of social participation. However, the evidence is sparse and could benefit from further research examining this outcome.

Some research has linked volunteering to generativity (de Espanés, Villar, Urrutia, & Serrat, 2015). In this respect, social relations are necessary to establish and guide the next generation. Moreover, generativity in later life was associated with a generative atmosphere during childhood (Urrutia, de Espanés, Villar, Guzman, & Dottori, 2016). This research suggests that exclusion from social relations (especially generative social relations) earlier in the life course will decrease social opportunities for volunteering in later life.

Research has demonstrated how important social relations are in securing employment in later life (Phillipson, Allan, & Morgan, 2004). Similarly Arber (2004) relates social opportunities to social relations throughout the lifecourse, and notes that unmarried men have not benefitted from spousal support for their careers and social organizational activities.

Social cohesion

There is often an underlying assumption in the media that disadvantaged neighbourhoods “lack the necessary ingredients which foster social cohesion” (Forrest & Kearns, 2001, p. 2133). Although disadvantage may weaken social cohesion, its effect is manifest through a variety of pathways including exclusion from social relations.

Some studies have used civic participation (Helliwell, 1995; Putnam, 1993) or trust (Knack, 2001; Knack & Keefer, 1995, 1997; La Porta, Lopez-de-Silanes, Shleifer, & Vishney, 1997) as proxy measures of social cohesion, believing that they are sufficient to capture the phenomenon. Other research has shown that political efficacy (in terms of influencing local decisions) and formal volunteering increases social cohesion, while a fear of, and actual levels of crime weaken it (Laurence & Heath, 2008). Additionally, some academic literature focuses on the politics of belonging in terms of citizenship, immigration and multiculturalism and has associated this with community social cohesion (Yuval-Davis, 2006). Some academics argue that ethnic diversity weakens community (e.g. Alesina & La Ferrara, 2002; Blumer, 1958; Levine & Campbell, 1972; McLaren, 2003; Putnam, 2007), while others argue that it strengthens it (e.g. Hewstone et al., 2005; Marschall, 2004; Oliver & Wong, 2003; Stein, Post, & Rinden, 2000). Some of the most compelling evidence from the UK suggests that deprivation undermines social cohesion within a neighbourhood, rather than ethnic diversity (Laurence & Heath, 2008). Furthermore, Crowley (1999) argues that belonging is not confined to the legitimisation of belonging and notions of citizenship, but is about how people perceive their location in the social world and is therefore influenced by experiences of social exclusion, including exclusion from social relations - connections to and interaction with others in the neighbourhood. Social cohesion is therefore the product of complex relationships between elements that contribute to the risk for, and outcomes of exclusion from social relations.

Health and functioning

There is evidence that good social relations can help older people to maintain physical and psychological health and functioning (Courtin & Knapp, 2017; Gallagher, 2012; Shankar, McMunn, Demakakos, Hamer, & Steptoe, 2017; Walsh et al., 2012). There are two theoretical perspectives that describe the association between social relations and health and functioning outcomes (Holt-Lunstad, Smith, & Layton, 2010). These are the buffering hypothesis, and the main effects model. In the buffering hypothesis, the objective levels or perceived availability of social relations decrease biological stress responses to negative life events and ultimately protect individuals from poor health (Catell, 2004). For example, Cacioppo and Hawkey (2009) note that perceived social isolation contributes to poor cognitive performance and cognitive decline. On the other hand, the direct effects model suggest that social relationships may directly shape functional healthy behaviours or promote psychological health by increasing self-esteem and purpose in life (Cohen, 2004; Thoits, 1983).

With regard to the potential impact of exclusion from social resources on specific diseases, polygenic scores can be used to study the outcomes of exposure that is, whether exclusion mitigates or amplifies genetic risks. The construction of polygenic risk score for various physical (e.g. diabetes (Allen et al., 2010)) and cognitive diseases (e.g. Alzheimer's disease (Escott-Price, Shoai, Pither, Williams, & Hardy, 2016; Escott-Price et al., 2015), Parkinson's disease (Escott-Price et al., 2015)) and the availability of GWAS cohorts with individual 'social' information, provide opportunities to investigate exclusion from social relations as a contour of disease risk within the older population. However, to date, gene-environment (G x E) interaction analysis generally been conducted with younger populations (e.g. Boomsma, Willemsen, Dolan, Hawkey, & Cacioppo, 2005; Eisenberger, Way, Taylor, Welch, & Lieberman, 2007; Gallardo-Pujol, Andres-Pueyo, & Maydeu-Olivares, 2013).

Contextual influences on exclusion from social relations

Socio-cultural, social-structural and environmental factors impact on the risk of exclusion from social relations and distal outcomes. Here, we consider the evidence of the interplay between norms and values (including prejudice, discrimination and ageism); workforce

demands and population turnover; environmental influences and neighbourhood exclusion; and the policy context.

Norms, values and culture

Cultural norms and values refer to the typical or ‘normal’ set of beliefs, attitudes and patterns of behaviour that exist in a given group, community or society. It is the set of beliefs and customs that a society or community of people share which can be transmitted through language, rituals, religion, institutions, art, music and literature and passed from one generation to another. There is an emerging body of literature about older people, culture and social exclusion, focussing on such aspects as ageism, age discrimination, negative representations and social constructions of ageing, symbolic and discourse exclusion and identity exclusion (Walsh et al., 2017).

Turning first to socio-cultural influences on exclusion from social relations, we have suggested above that subjective assessment of the quality and quantity of social relations result in either positive or negative outcomes. The subjective evaluation of social relations is influenced by cultural values concerning the normative expectations for the ‘ideal’ levels and types of relationships. However, cultural values vary between societies. For example, the preferred configuration of networks of family and friends differs between individualist and collectivist cultures. Considering cultural effects in terms of exclusion from social relations, we need to recognize that normative expectations about sources of support and family forms have a bearing on the extent to which social relations can protect or buffer an older person from adverse outcomes. Furthermore, the transgression of cultural values can create stigma and undermine the ‘moral status’ of an individual (Liu, Hinton, Tran, Hinton, & Barker, 2008). For example, the configuration of networks of family and friends differs between individualist and collectivist cultures and deviations from normative networks result in greater loneliness for older people (Burholt & Dobbs, 2014; Burholt, Dobbs, & Victor, 2017).

An *individualistic culture* is defined as one in which the members value independence, and the cultural norm is for nuclear living arrangements (i.e. a single person, couple, or couple and young children only). On the other hand, *collectivist cultures* value interdependence and are oriented toward cohesion, commitment and obligation. In collectivist cultures, social units with common goals are central. Consequently, collectivist value systems are strongly related

to communalism, familism and filial piety (Schwartz et al., 2010). *Communalism* emphasizes social bonds to kin and non-kin, prioritizing social relationships over individual achievement. *Familism* prioritizes the family (as a social unit) over the individual needs and *filial piety* emphasizes respect for older family members and obligations towards meeting parents' needs (Schwartz et al., 2010). A cultural norm in some familistic cultures is for several generations of families to coreside (Triandis, 1989). Research with migrants from collectivist cultures suggests that family focused networks with few non-kin members represent the desired standard for social relationships and protect against loneliness (Burholt et al., 2017; De Jong Gierveld et al., 2015; Fokkema & Naderi, 2013). On the other hand, diverse networks comprising friends, family and involving community activities are more robust in individualistic cultures and less prone to loneliness and other negative wellbeing outcomes (Fiori, Antonucci, & Cortina, 2006; Litwin & Shiovitz-Ezra, 2010; Wenger, 1991). As noted earlier, childlessness may also be considered a deviation from cultural norms which may result in negative well-being outcomes, as in Western and non-Western societies there are strong expectations concerning parenthood (Gibney et al., 2017; McQuillan, Stone, & Greil, 2007).

In addition to normative expectations concerning family forms, living arrangements and social relations, geographic locations are also subject to a set of normative expectations. For example, the representation of the rural idyll – the pastoral myth of Western literature in which rural life is portrayed as bucolic and virtuous - has been reproduced in European literature and transported globally. Despite the mythologizing of the rural idyll, research suggests that rural and remote areas are less supportive and connected than more connected rural areas on the periphery of urban areas. Therefore, they are misrecognized in popular, media and policy conceptions of the countryside. Normative expectations about rural living are, or are not achieved by subgroups with different modes of power relating to age, gender, marital status, health, class and in diverse rural settlement types (Burholt, Foscarini-Craggs, & Winter, in press).

Turning next to social-structural influences on exclusion from social relations, we acknowledge that factors, such as social status and discrimination (e.g. prejudices based on age, race, gender, sexual orientation and disability) may create or decrease social exclusion from social relations for older people. For example, ageism as a constraint on paid employment (Rozanova, Keating, & Eales, 2012), while experience with racial discrimination (Burholt, Dobbs, & Victor, 2016; Fokkema & Naderi, 2013; Viruell-Fuentes et al., 2012),

homophobia and heterosexism (Butler, 2017; Villar, Fabà, & Serrat, 2014) and the stigmatization of certain disabilities (e.g. dementia (Burholt, Windle, & Morgan, 2016)) may impact on social participation and relations, and distal outcomes.

Workforce demands and population turnover

Migration is a life event that impacts on individual risk of experiencing exclusion from social relations (see above). However, migration is also a macro-level phenomenon. Migration and population change within a community can also influence exclusion from social relations (Burholt & Sardani, in press; Gray, 2009; Scharf & Bartlam, 2008; Walsh et al., 2012). Increased female participation in the labour force, or lack of local employment opportunities resulting in relocation to seek work can increase exclusion from social relations. Some research has explored family dispersion linking demography, migration and rural ageing, focusing on the resilience of many rural families who retain emotional intimacy at distance (Keeling, 2001; Scharf, 2001). However, there is evidence to suggest that there are differences in exclusion from social relations in terms of ‘ageing in place’ (older people staying in the communities of origin with the out-migration of younger people) and ‘ageing places’ (communities that have a growing population of older in-migrants (Burholt & Sardani, in press; Skinner, Hanlon, Halseth, & Ryser, 2014).

While geographic labour mobility may impact on population turnover, other demands of the workforce (longer working hours, extended working year (Van der Hulst 2003), and job insecurity (Sverke, 2006)) may also impact on availability of family and friends to spend quality time with older people (Ogg & Renaut, 2012; Treas & Mazumdar, 2002). Similarly, informal caregiving can impact on the time available to maintain friendships and social relations (Rozanova et al., 2012; Wagner & Brandt, 2015).

Neighbourhood influences and exclusion

Exclusion from social relations is influenced by the environment and neighbourhood exclusion. Thus, place, as a socio-spatial phenomenon, can shape older adult’s lives and can amplify or protect from exclusion from social relations.

Physical environments have an important influence on exclusion from social relations. For example, neighbourhood design, housing diversity, population density, mixed land use and open space are associated with walkability and social contact (Bowling & Stafford, 2007; Burholt, Roberts, & Musselwhite, 2016; Byles, Leigh, Vo, Forder, & Curryer, 2014; Lager, Hover, & Huigen, 2015; Tomaszewski, 2013; Walker & Hiller, 2007). In these instances, it is assumed that activity levels are moderated by an individual's ability to cope with *environmental stress* or hazards. Crime and fear of crime may also reduce accessibility and are influenced by *neighbourhood disorders* such as litter, graffiti and lighting (Lorenc et al., 2012). *Environmental stress* and *neighbourhood disorders* may impede older people's access to the immediate environment, subsequently interfering with efforts to maintain or develop social relations (Burholt, Roberts, et al., 2016). However, Krause (2006) notes that more research is needed on the influence of neighbourhood conditions on social relations

The influence of the environment on social relations is also considered in terms of settlement type, which may be defined using clusters of variables describing different types of rural/urban areas, or areas experiencing multiple deprivations or disadvantages.

There are different degrees of marginalization in disadvantaged and rural and remote places that may have fewer facilities and services. These can negatively influence social participation and social engagement (Burholt & Scharf, 2014; Keating, Swindle, & Fletcher, 2011; Walsh et al., 2012). While some authors have noted that exclusion from social relations is particularly pronounced for those living in deprived and remote rural areas (Milne, Hatzidimitriadou, & Wiseman, 2007; Walsh et al., 2012). Scharf, Phillipson and Smith (2005) found that older people living in deprived urban areas are more vulnerable to exclusion from social relations than those living in the UK as a whole.

Policy context

Policies that tackle the risk for exclusion or the cultures and geographical locations in which exclusion takes place (e.g. discrimination, environment and access to services) have the potential to exert a positive influence on social relations. Welfare expenditure, particularly on care and health services, has the potential to cancel out some negative effects of exclusion from social relations (Ellwardt et al., 2014). For example, Ogg and Renaut (2012) suggest that policies supporting intergenerational solidarity (e.g. cash for care (Da Roit & Le Bihan,

2007, 2010; Timonen, Convery, & Cahill, 2006; Ungerson, 2004)) could help maintain inclusive social relations for older people. Additionally, policies that promote advice on welfare rights can modestly increase material resources and positively influence social relations (Moffatt & Scambler, 2008). However, these initiatives require stable economies and in times of austerity and economic recession are unlikely to be achieved. On the other hand, neoliberal policies that shift responsibility from the state to the community meet the ‘prudent’ agenda by finding new and cheaper ways for dealing with social problems (Nousiainen & Pylkkänen, 2013).

Despite meeting the ‘prudent’ agenda, some policies seem to be influenced by stereotypical representation of subpopulations and communities. For example, policy discourse reinforces the notion of rural supportiveness, suggesting that citizens within rural communities are resourceful, self-sufficient, and interdependent (Woods & Goodwin, 2003). Certain rural policies encourage communities to take responsibility for governance and tackling local problems (e.g. Rural White Paper for England (House of Commons, 1996); Positive Rural Futures, in Queensland, Australia (Herbert-Cheshire, 2000); and Quebec’s National Policy on Rurality (Affaires Municipales et Régions Québec, 2006)). However, rural communities and the inhabitants therein, have varying abilities to live up to the ‘self-help’ stereotype. Thus, despite policies that superficially appear to contribute to social inclusion, communities that are unable to provide services and amenities from informal, community and voluntary sources are unable protect against exclusion from social relations for older residents (Burholt et al., in press).

Mediators and moderators of exclusion from social relations

Psychological resources and attributions (such as social comparison) can modulate the experience of exclusion from social relations. These factors influence how people manage difficult situations, and adapt to produce positive outcomes.

Psychological resources

There is some evidence concerning the mechanisms by which psychological resources influence the pathway between social relations and distal outcomes. For example, neuroticism and stress mediate the pathway between educational level and loneliness for unmarried older people (Bishop & Martin, 2007). However, little is known about resilience in later life when faced with prolonged exposure to an adversity, such as exclusion from social relations.

In social psychology, resilience is “the process of effectively negotiating, adapting to, or managing significant sources of stress or trauma,[...] and ‘bouncing back’ in the face of adversity” (Windle, 2011). In later life there is greater likelihood of experiencing disruptive losses, such as widowhood or decline in material resources, that may contribute to exclusion from social relations and poor outcomes, if not managed. So it is essential to understand the circumstances under which older people are able to manage losses, and experience good outcomes. While resilience may influence the experience of exclusion from social relations, it has been absent from theoretical and measurement models (Burholt, Windle, et al., 2016).

Attributions

In certain circumstances social comparison (attribution) may amplify poor outcomes that stem from exclusion from social relations. Social comparison theory (Festinger, 1954) posits that social and personal worth are determined by perceptions of how others fare in relation to one’s own position. Comparisons can be made with someone who is perceived to be ‘better off’ (upward comparisons), ‘worse off’ (downward comparisons) or of the same status (lateral comparisons). Research has attempted to identify the types of comparisons that are most beneficial - and to ascertain which factors moderate the effects of comparison (Arigo, Suls, & Smyth, 2014).

The traditional view of social comparison is that people deliberately or explicitly select and compare themselves to standards that are often similar to the self (Festinger, 1954). However, more recently evidence suggests that the process is spontaneous and comparison is carried out automatically or implicitly. Experiments have shown that subliminal priming of social comparison standards impacts on self-evaluations (e.g. self-comparison to elite athletes) (Mussweiler, Ruter, & Epstude, 2004). Thus, upward, downward or lateral comparison may not involve deliberate selection of a *similar* standard, but instead automatic selection can be

representative of an extreme state. These types of social comparison are unlikely to yield useful information, and in the case of expectations about social contact may contribute to poor outcomes. Whereas unrealistic standards and contrasts for social relations with an extreme may contribute to poor outcomes, it is also possible that dominant negative societal discourses about ageing, or diseases associated with old age, may be internalized and self-evaluations assimilated towards this stereotype (Burholt, Windle, et al., 2016).

Adaptation of expectations in response to changing circumstances and experiences may allow negative outcomes (e.g. loneliness, low levels of life satisfaction and quality of life) to be avoided despite objective deterioration in social circumstances. However, cognitive processes (cognitive impairment, depression, anosognosia) may hamper optimal regulation. Despite a new focus on cognitive processes including automatic comparison (Mussweiler et al., 2004; Stapel & Blanton, 2004) and unrealistic optimistic comparison (Bortolotti & Antrobus, 2015; Shepperd, Klein, Waters, & Weinstein, 2013) there has been very little research that looks at the moderating or mediating effect of these processes on the pathway between exclusion from social relations and outcomes (for exceptions see, Burholt & Scharf, 2014; Burholt, Windle, et al., 2016), and further research is required in this area.

Discussion

In terms of the ecological model, explanations for the associations between exclusion from social relations, risks and distal outcomes can be studied at different levels, ranging from individuals' genes to social-structural forces such as social policy influences. The human ecology framework guides our conceptualisation of the inter-relatedness of systems and the relationship between exclusion from social relations, risks and outcomes.

A conceptual model of exclusion from social relations: Complexity, diversity and intersectionality

From the systems perspective, the distal outcomes of well-being (e.g. quality of life, life satisfaction, loneliness and belonging); health and functioning; social opportunities and social cohesion are conceptualized as emergent products of a system, in which individual risks,

community, environment and macro-structures (Governmental policies, values and normative beliefs) are inextricably connected to objective and subjective experiences of exclusion from social relations (Figure 1).

Separate disciplines tell different stories about the risks for and the outcomes of exclusion from social relations because each has dealt with a distinct part of the available data. This has resulted in a narrow or fragmented understanding of what it means. In order to address this gap, interdisciplinary research is required to demonstrate: *“how a solution is produced by the interactions of people each of whom possesses only partial knowledge”* (Hayek, 1945, p. 530).

Historically social scientists have focused on environmental and psycho-social-structural influences on human variation, while biologists have concentrated on inherited genetic traits or evolutionary history. However, the latest research suggests that genes and ecopsychosocial factors have a complex dynamic that influences health, behavioural and social outcomes (Belsky & Israel, 2014; Goossens et al., 2015). Genes operate within social, psychological, cultural and physical environments which need to be accounted for in research. Consequently, in addition to acknowledging the complexity of routes to exclusion from social relations and distal outcomes, we need to understand the dynamic interrelations between the phenomena within the human ecological system.

For example, a clinical feature of dementia is a decline in social cognition including recognition of emotions, and insight which in turn may contribute to a decline in social relations. However, the observed decline in social functioning is unlikely to be due to brain injury alone, but is also influenced by social dynamics such as cultural values, environmental accessibility and discrimination; psychological resources such as sense of control or resilience. Conversely, one of the outcomes of exclusion from social resources – loneliness - can lead to impaired cognitive function and decline over time. This bi-directional or reciprocal relationship suggests that social relations, cognitive impairment and loneliness reinforce each other (Figure 1).

The association between health as a risk for and outcome of exclusion from social relations has also been observed elsewhere (Sacker, Ross, MacLeod, Netuveli, & Windle, 2017). Similarly, there may be feedback loops from other distal outcomes that may reinforce exclusion, or collinearity between distal outcomes. For example, some research has found an

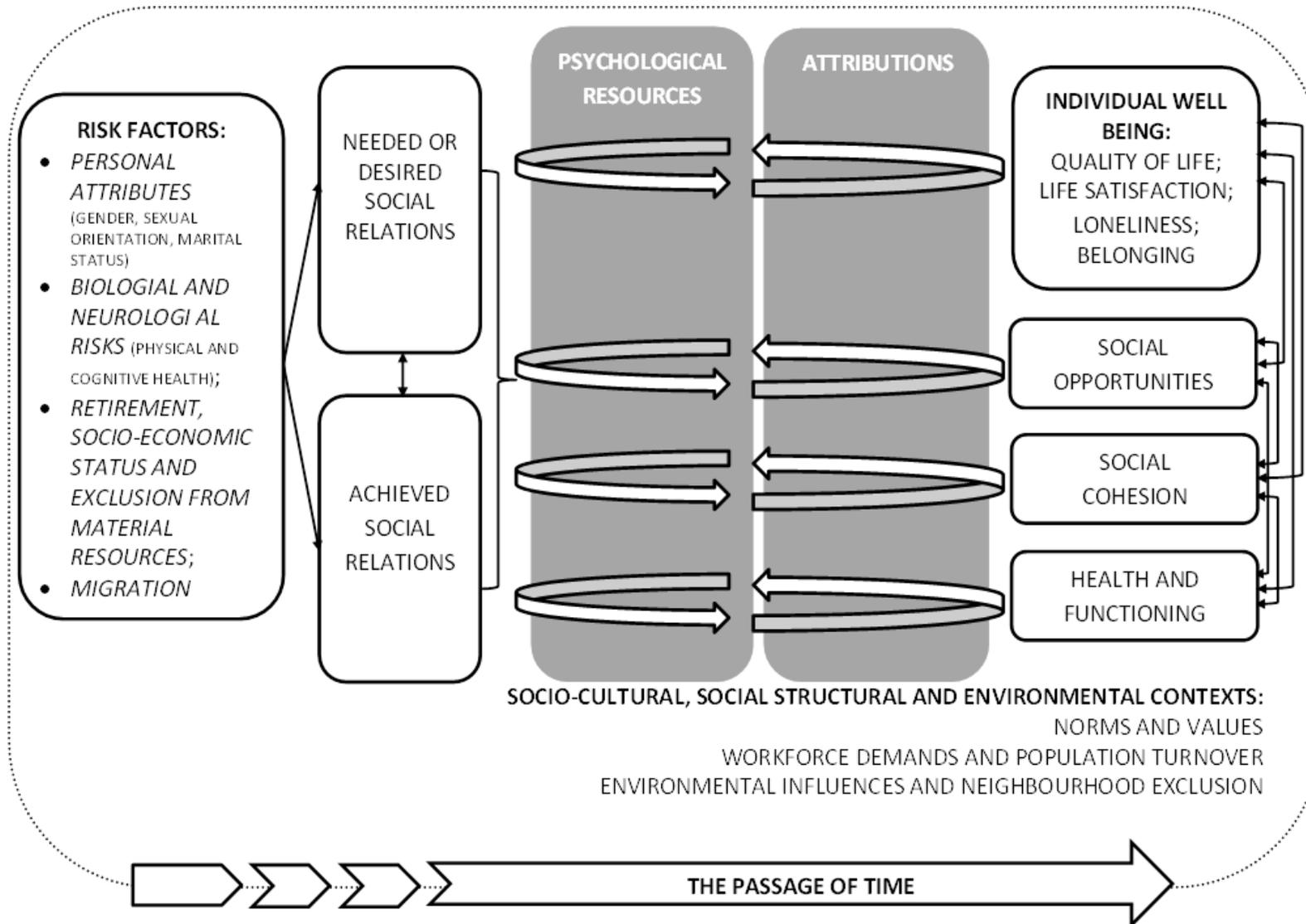
interrelationship belonging and loneliness (Beech & Murray, 2013; De Jong Gierveld et al., 2015), both outcomes that are influenced by social relations.

Finally, our conceptualisation of exclusion from social relations is dynamic and takes into account the influence of time and change across all elements of the model. By taking a critical human ecological approach to exclusion from social relations, the model takes into account the lifecourse, historical changes in political ideologies, policies and economies (period effects), and places (place effects).

Conclusion

Future research on exclusion from social relations should bridge separate disciplines that have to date been disconnected to reveal many of the meaningful relationships that exist in data but have remained obscured by unidisciplinarity. An interdisciplinary approach is required to understand the underlying biological and ecopsychosocial associations that contribute to individual differences.

Figure 1. Conceptual model of exclusion from social relations.



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ROSEnet aims to overcome fragmentation and critical gaps in conceptual innovation on old-age exclusion across the life course, in order to address the research-policy disconnect and tackle social exclusion amongst older people in Europe.

Research Objectives

- Synthesise existing knowledge from regional, disciplinary and sectorally disparate dialogues, forming a coherent scientific discourse on old-age exclusion;
- Critically investigate the construction of life-course old-age exclusion across economic, social, service, civic rights, and community/spatial domains;
- Assess the implications of old-age exclusion across the life course within economic, social, service, civic rights, and community/spatial domains;
- Develop new conceptual and theoretical frameworks that can be practically applied in understanding and combating the exclusion of older people in European societies;
- Identify innovative, and implementable, policy and practice for reducing old-age exclusion amongst different groups of older people and in different jurisdictional and regional contexts.

For further information please visit: www.rosenetcost.com