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Unmet care needs over time: social networks and persistent unmet needs

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Introduction

Ensuring timely access to services and support necessary to maintain the functional ability that enables well-being in older age is a prerequisite for healthy ageing globally (Public Health England, 2019; WHO, 2020). Meeting older adults' social care needs is essential to older persons' capabilities for coping with daily challenges, and maintaining their health status, well-being and dignity (Allen et al, 2014). People who report unmet needs experience more challenges with their Activities of Daily Living (ADLs) (Komisar et al, 2005), use health care more often (DePalma et al, 2012; Xu et al, 2012) and have a higher mortality rate (He et al, 2015). Determining the extent and nature of unmet needs is, therefore, critical in assessing the effectiveness of social care provision and in identifying and quantifying the types of unmet needs that can help policy makers address them (Vlachantoni et al, 2011).

In England, social care includes physical and financial help, care, and support for individuals with diverse needs due to disability, illness, frailty and other life circumstances (DHSC, 2021). This includes home care, home adaptations and 24-hour care in care homes. Receiving and providing informal/family care depends upon individuals' needs, economic, physical and social resources, opportunities, and preferences (Litwin et al, 2008). Older persons' social networks constitute a major resource for personal care in later life (Ayalon and Levkovich, 2019). Understanding the relationship between different social networks and the dynamics of unmet need for social care can help pinpoint groups of individuals who face an elevated risk of experiencing persistent unmet needs, and inform policies aimed at supporting them. This chapter adds to the literature by investigating the dynamics of unmet need for social care across different domains and how this varies by social network typology, aiming to inform policy and practice.

Population ageing and challenges to meet social care needs

It is estimated that 14 per cent of people aged 60 years and over globally (142 million) are unable to perform their basic daily activities unassisted (WHO, 2020). Population ageing, especially the increase in the number of those aged 85 and over, is linked to an increase in health care and social care requirements (Jagger, 2015). In England, where around 1.5 million older people experience unmet needs for social care (Age UK, 2019), the support received by a person in need comes from a range of sources including informal, formal statutory publicly funded and/or self-paid sources. The most common source of informal care for older people is their partner or adult children (Pickard, 2015). However, population ageing and changes in intergenerational family structures have challenged how family carers provide care (Hoff, 2015). Increasing lifespans combined with lower fertility have led to more smaller family units that will need to support multiple generations. More women entering the workforce has changed the traditional division of labour within families (Irvine et al, 2022). Divorce and family forms such as 'living apart together' have also become more usual, resulting in a plurality of family forms (Haskey, 2005), and social risks in meeting the increasing demand for informal care.

The formal statutory social care system in England is means-tested and separate from the health care system (which is free at the point of need), with local government authorities being responsible for commissioning care, mostly from market providers (DHSC, 2021). Since 2008, the adult social care budgets of most local authorities have been cut (Ismail et al, 2014), resulting in many local authorities raising their eligibility thresholds. In practice, the allocation of publicly funded social care is strongly determined by the level of informal support and older persons' living arrangements (Fernandez et al, 2015), and more older people have to rely on their own resources to pay privately for care, or go without care (Maplethorpe et al, 2015).

Definitions and conceptual framework of unmet needs of social care and dynamics

There is no consensus regarding the definition and measurement of 'need' and 'unmet need' for social care. Much of the literature focusing on the need for assistance among older individuals highlights the link between need and one's difficulty with daily functions or activities, which determines the type of assistance required (Allin et al, 2010; Allen et al, 2014; Vlachantoni et al, 2015). Vlachantoni et al (2011) conceptualised unmet needs as being determined by the interaction between a person's type and level of need and the type and level of support they receive, and affected by their demographic, socioeconomic and health status characteristics. This framework was

advanced by incorporating a temporal dimension to investigate the dynamics of met/unmet needs for social care over time (Vlachantoni et al, 2024). For the need for any type of care, five different dynamics were identified between two time points:

1. no longer have needs;
2. continued needs met;
3. newly arisen unmet needs;
4. delayed needs met; and
5. persistent unmet needs (Vlachantoni et al, 2024).

Kröger (2022) distinguished care needs under three different domains: personal care for ADL needs; practical care for Instrumental Activities of Daily Living (IADL) needs; and socio-emotional care needs for respect, love and belonging. This leads to a categorisation of three different domains for care poverty: personal care poverty (lack of coverage for ADL needs); practical care poverty (lack of help in meeting IADL needs); and unmet social and emotional needs, with loneliness as an expression. The concept of unmet need has been frequently used in gerontology and tends to focus on the micro-level of individuals' experiences and characteristics, whereas the concept of care poverty aims to capture both macro- and micro-level indicators, taking an interdisciplinary perspective and also focusing on inequalities. The present analysis adopts these three domains of care needs within a temporal perspective, combining the conceptual frameworks from Kröger (2022) and Vlachantoni et al (2024). Despite not being highlighted within England's social care system as a formal need, emotional care needs (loneliness) were included in this study as they impact on older adults' health (Macdonald et al, 2021). Loneliness differs from social isolation, as one can feel lonely even within a social network.

Social networks and social support

Previous studies have highlighted how informal social care receipt varies according to an older person's social network (Litwin and Landau, 2000). The social convoy model describes patterns of changing social networks and support as people age (Kahn and Antonucci, 1980), asserting that personal (for example, age) and situational factors (for example, role expectations) change over time and influence the quantity and quality of social relationships (such as a decrease in network size as one's own marital status changes). An alternate perspective is provided by the socio-emotional selectivity theory, arguing that as one ages, individuals become more selective and strengthen emotional ties, dissolving unimportant relationships and forming fewer, higher-quality ones (Carstensen, 1992).

Network types among older adults have been derived based on various criteria, including the availability of close kin, level of involvement of family, friends and neighbours, and geographic proximity, among others (Wenger, 1991; Litwin and Landau, 2000; Fiori et al, 2006). Common across different typologies, the network type significantly predicts social support and, in turn, impacts older people's well-being. Litwin and Landau (2000) found that the *Kin network* (mostly relatives/adult children) offers the most support, and the *Family-intensive* type (comprised overwhelmingly of adult children) the least. Fiori et al (2006) found that the *Diverse network* (likely to be married/have children, frequent contact with children, frequent attendance at meetings/religious services) had the best outcomes in depressive symptomatology and the *Non-family-restricted networks* (limited social ties, unlikely to be married or have children, limited contact) the worst.

Research objectives

There is limited evidence on the impact of heterogeneous network types on later-life care receipt and unmet needs. In most studies, social support scores reflect the relative supportiveness of respondents' networks, without distinguishing between care needs. This analysis examines the dynamics of three domains of unmet care needs (personal, practical and emotional) and their relationship with different social network types among older adults in England.

There are three specific objectives. First, we assess the dynamics of each domain of unmet care needs over two time points among older adults reporting needs at the baseline. Second, we derive a typology of social networks using demographic and social factors shown to be related to social network types. We expect that men, women and people of different levels of socioeconomic positions (SEP) and ages have different social network types. Third, we examine relationships between social network types and the dynamics of unmet social care needs in each domain. We anticipate that Diverse and Family incentive networks will be associated with better outcomes compared to Restricted or Friends-focused networks.

Methods

The English Longitudinal Study of Ageing (ELSA) began in 2002 and collects information on the physical and mental health and demographic and socioeconomic circumstances of a representative sample of the English population aged 50 and over living in the community (Banks et al, 2019). For this study the two most recent Waves 8 and 9 are employed (collected May 2016 to June 2017 and June 2018 to July 2019, respectively). The analytic sample includes respondents aged 65 and above who reported needing

personal, practical or emotional social care in Wave 8 (baseline), and who participated in both Waves 8 and 9. A total of 4,075 respondents (mean age=74.0, SD=6.9, 54.4 per cent women) met the sample selection criteria for the emotional care needs analysis, assuming everyone has emotional needs; the same for 713 respondents (mean age=76.3, SD=7.9, 57.6 per cent women) with at least one ADL difficulty at Wave 8 for the personal care needs analysis; and 683 respondents (mean age=77.1, SD=8.0, 65.3 per cent women) with at least one IADL difficulty at Wave 8 for the practical care needs analysis. Among those needing personal care, 60.5 per cent also need practical care.

Measure

Dependent variables

The two waves of data included consistent questions about respondents' report of difficulties with ADLs (dressing, bathing, getting in/out of bed, walking across a room, using the toilet and eating) and IADLs (shopping for groceries, taking medications, house/garden work and managing money) and support receipt for such activities from informal/formal sources. The survey also collected information about loneliness ('How often one feels lonely').

Referring to three domains of care needs (Kröger, 2022) and the framework of unmet social care needs (Vlachantoni et al, 2011; 2024), in this study, at each wave, a person is defined as having 'unmet needs of personal care' when they reported any ADL difficulties but did not receive any support with such tasks from any source (formal or informal). A similar approach defines 'unmet needs of practical care', when respondents reported any IADL difficulties. Respondents are defined with 'unmet needs of emotional care' when they feel lonely sometimes or often.

Over the observation period, some older adults received help at Wave 8. Among these, at Wave 9, the majority continued receiving support which met their needs, as defined in this chapter (continued need met); a number of people reported no such difficulty anymore (no longer have needs); and a small number of people did not receive help anymore and thus now had unmet needs (newly arisen unmet needs).

Some older people had unmet needs at Wave 8. Among these, at Wave 9, some now received help which met their needs (delayed needs met); while some again did not receive any help (persistent unmet needs). Five different dynamics for each domain of care needs were identified, as described previously (Vlachantoni et al, 2024), to examine the relationship between the social networks type and unmet care needs.

In the descriptive analysis, the outcomes were personal care, practical care and emotional care unmet needs dynamics. In the multivariate statistical

analyses, binary logistic regression was applied to hone in on each group, focusing on persistent unmet needs of:

1. personal care (not receiving help with at least one ADL difficulty at both waves);
2. practical care (similarly for IADL);
3. emotional care (feel lonely often or sometimes at both waves).

Type of social networks

This variable was measured at Wave 8. To construct the latent variable of the typology of social networks, 17 indicators were used regarding the family/non-family size, geographic proximity, physical and digital contact frequencies. Latent class analysis was applied. Each respondent was assigned a probability of social network membership in each latent class. Latent class analysis shows a five-class fitting the data best after comparing the Akaike Information Criterion (AIC), the Bayesian Information Criterion (BIC) and Entropy from four or five or six class analyses. The lower AIC and BIC, and the greater Entropy, the better the fit. The five-class social networks are named as:

1 *Friend-focused* (high frequency of contact with friends, both face-to-face and digital, children not living nearby, digital contact with children), accounting for 19.5 per cent out of 4,075 respondents.
2. *Diverse* (most extensive of all networks with a spouse, children, other family members and friends, both face-to-face and digital contact), accounting for 17.6 per cent.
3. *Couple-centred* (live with spouse/partner, low contact with other networks), accounting for 27.1 per cent.
4. *Children-centred* (children live nearby, high face-to-face contact, lower chance living with spouse/partner), accounting for 18.4 per cent.
5. *Restricted* (little social ties, not living with a spouse/partner, few/no children, low contact with friends), accounting for 17.4 per cent.

Covariates

Previous research has shown that several factors heighten the likelihood of experiencing unmet needs among older people, including their family, health and socioeconomic status (Vlachantoni, 2019). Age ranged from 65 to 90 and was coded as 0=65–74; 1=75–84; 2=85 and above. Self-reported gender was coded as 0=male; 1=female. Living arrangements were coded as 0=living with someone; 1=living alone, only partially overlapping with the variable used in constructing the social network typology (living with the spouse versus with others). The National Statistics Socio-Economic Classification

(NS-SEC), indicating a person's SEP, was coded as 0=professional; 1= intermediate; 2=routine. Routine reflects a low SEP. The wealth quintile was coded as 0=lowest quintile to 4=highest quintile. Self-rated health was coded as 0=excellent/very good; 1=good; 2= fair/poor.

Analytic plan

To construct the latent variable of social networks, the latent class analysis was conducted using Mplus8. To examine the associations between social network class membership and covariates with dynamics of different types of met/unmet needs (focusing on persistent unmet needs), multivariate analyses are presented applying logistic regression with STATA17.

Results

Dynamics of social care needs

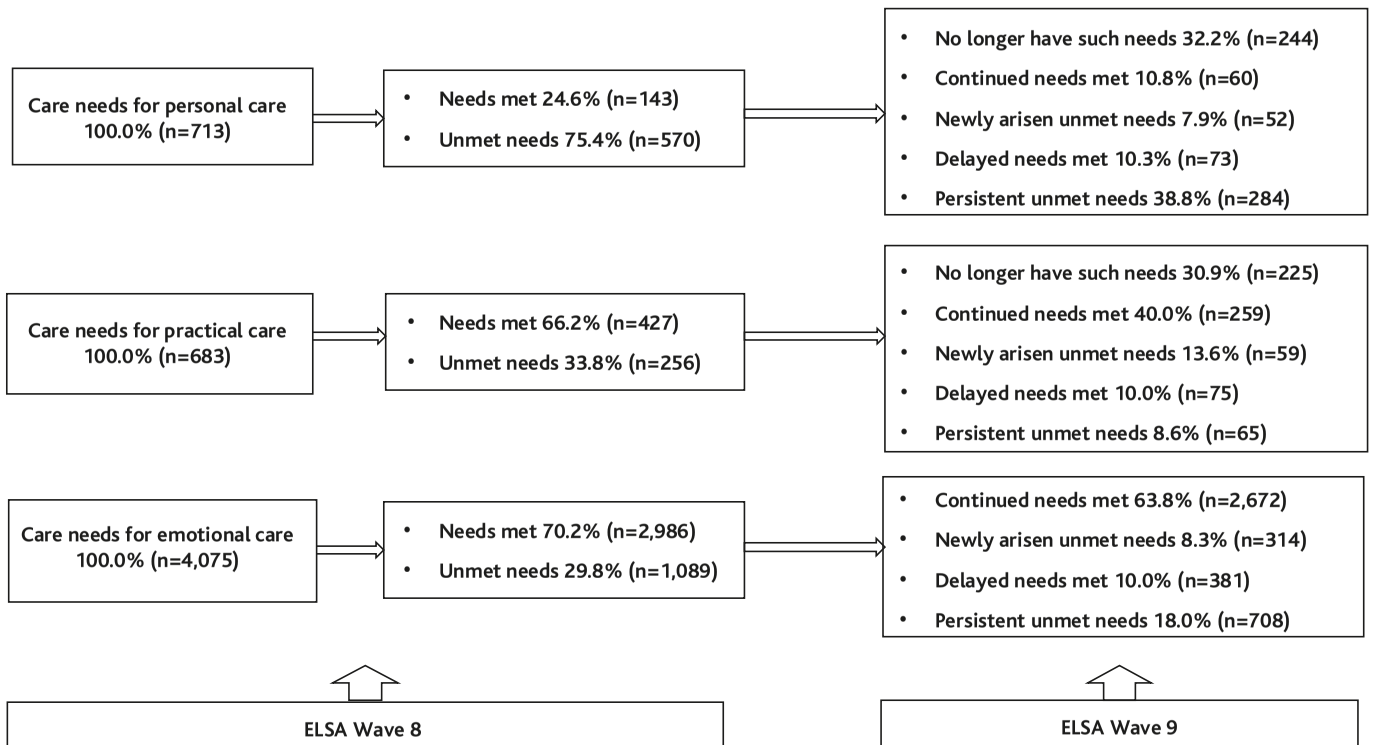
Figure 6.1 shows the percentages of older persons in each dynamic for the personal, practical and emotional care needs under study. Taking personal care as an illustration, among those needing personal care in Wave 8 (N= 713), 24.6 per cent had met needs and 75.4 per cent had unmet needs. By Wave 9, 32.2 per cent of those with a care need in Wave 8 no longer had needs, 10.8 per cent continued to have their needs met, 7.9 per cent had new unmet needs, 10.3 per cent had their needs met with a delay, and 38.8 per cent had persistent unmet needs.

Older people needing personal care had the highest proportion of *persistent* unmet needs, followed by emotional and practical care needs. The proportions of older people with delayed needs met are similar across all three care domains, accounting for around one in ten who were in need. Around one-third of older adults with a need for personal or practical care in Wave 8 do not report having needs in Wave 9, indicating that their care needs have changed over time.

Social network types

Table 6.1 shows the distribution of social network types according to age, gender, socioeconomic classification, health status and living arrangements. Friends-focused networks are more common among younger ages, professionals, and individuals with excellent/very good health. Diverse networks are characteristic of younger persons, women, and those with excellent/very good health. Men dominate Couple-centred networks. Children-centred networks are featured among older ages, females, living alone and those in lower SEP. Restricted networks are characteristic of males, those living alone, and in higher SEP.

Figure 6.1: Dynamics of met and unmet personal, practical and emotional care needs (number and proportion of respondents in each of the defined categories)



Source: Authors' analysis of ELSA (Waves 8 and 9).

Table 6.1: Respondents' characteristics and social networks (column percentages, N=4,075)

	Social networks					P-values	Total
	Friends-focused	Diverse	Couple-centred	Children-centred	Restricted		
Age						<0.001	
65–74	65.3	73.6	56.9	39.7	60.3		58.9
75–84	27.7	22.8	32.3	42.9	28.4		31.0
85+	6.9	3.6	10.7	17.4	11.2		10.1
Gender						<0.001	
Male	40.7	33.5	57.9	37.9	52.3		45.6
Female	59.3	66.5	42.1	62.1	47.7		54.4
NS-SEC						<0.001	
Professional	35.4	31.3	27.9	21.3	37.0		30.3
Intermediate	28.1	24.8	26.6	22.4	28.6		26.2
Routine	36.5	43.8	45.5	56.3	34.4		43.5
Self-reported health						<0.001	
Excellent/very good	42.8	42.9	32.2	27.8	36.4		36.1
Good	34.4	35.3	35.9	39.8	33.5		35.8
Fair/poor	22.8	21.8	31.8	32.4	30.1		28.1
Wealth quintile						<0.001	
Lowest	12.8	18.6	12.8	22.3	18.4		16.6
2nd	14.8	19.8	20.3	27.1	15.4		19.5
3rd	22.4	21.6	23.7	19.8	21.7		22.0
4th	21.9	20.4	21.4	19.0	23.2		21.2
Highest	27.6	19.2	21.0	11.6	20.5		20.7
Living arrangements						<0.001	
With someone	71.0	76.2	85.6	57.1	58.8		71.2
Alone	29.0	23.8	14.4	42.9	41.2		28.8
Number of ADL and IADL difficulties						<0.001	
0	80.5	77.8	72.0	65.6	69.3		73.0
1	8.2	9.5	11.3	14.9	11.9		11.1
More than 1	11.3	12.7	16.7	19.5	18.9		15.8

Source: Authors' analysis of ELSA (Waves 8 and 9).

Network types and dynamics of social care needs

The bivariate associations present the relationship between social network types and unmet social care needs dynamics (Table 6.2). Looking at personal care needs, a high proportion of those with Children-centred or Restricted networks experienced persistent unmet needs or delayed needs met. Those with Friends-focused networks also had a high level of delayed needs met. In contrast, those with Couple-centred networks had the lowest level for persistent and delayed unmet needs. Concerning practical care needs, respondents with Couple-centred networks had the highest proportion of persistent unmet needs. Those in Restricted networks had the highest proportion of delayed needs met, but those with Children-centred networks had the lowest. For emotional care needs, again, those with Children-centred or Restricted networks had a relatively high proportion of persistent unmet needs, while those with Diverse networks had the lowest. Overall, social network types are associated with practical and emotional but not personal care needs dynamics (Table 6.2), although bivariate associations may be confounded by other factors.

Table 6.3 presents the results of the logistic regression models predicting older people's persistent unmet needs for personal, practical and emotional care, respectively. As few respondents had delayed personal and practical care needs, this chapter only focuses on persistent unmet needs. Older people in Children-centred networks were more likely to have persistent unmet personal care needs than those in Diverse networks. Those with Couple-centred networks were more likely to have persistent unmet practical care needs. Older people with Couple-centred networks were more likely to have unmet emotional needs. Moreover, those living alone, or with fair/poor health were more likely to have persistent unmet personal care needs than their counterparts, while older persons or those in lower SEP were less likely to have such persistent unmet needs. The most elderly adults (over 85) and those from the richest households were less likely to have persistent practical unmet needs. Females, those living alone, with good or fair/poor health, and the lower NS-SEC were more likely to have unmet needs for emotional care. Older respondents were less likely to have such persistent unmet needs.

Interaction tests assessed whether other factors moderated the associations between social networks and persistent unmet needs (data not shown). Females who needed personal care and had Couple-centred networks had a lower likelihood of persistent unmet needs of such care, while those living alone who needed practical care and in Children-centred networks had a lower likelihood of persistent unmet needs of such care. The small number of respondents prevented similar analyses for delayed met needs.

Table 6.2: Binary relationship between social network type and dynamics of unmet needs (%)

	Social networks at Wave 8					P-value	Total
	Friends-focused	Diverse	Couple-centred	Children-centred	Restricted		
In need of personal care at Wave 8 (n=713)						0.219	
No longer have needs for social care	31.6	40.5	33.6	29.9	27.0		32.2
Continued needs met	11.4	11.9	14.8	5.1	10.4		10.8
Delayed needs met	10.1	7.1	5.4	8.5	9.6		7.9
Newly arisen unmet needs	7.6	7.1	14.1	8.5	11.3		10.3
Persistent unmet needs	39.2	33.3	32.2	47.9	41.7		38.8
In need of practical care at Wave 8 (n=683)						0.035	
No longer have needs for social care	37.5	41.8	28.9	26.3	30.9		31.7
Continued needs met	38.9	36.7	37.6	48.9	40.0		40.9
Delayed needs met	6.9	5.1	7.4	6.8	13.6		8.1
Newly arisen unmet needs	5.6	10.1	11.4	13.5	10.0		10.7
Persistent unmet needs	11.0	6.3	14.8	4.5	5.5		8.7
In need of emotional care at Wave 8 (n=4,075)						<0.001	
Continued needs met	68.5	66.9	65.9	53.6	62.7		63.8
Delayed needs met	6.9	9.3	10.5	13.9	9.2		10.0
Newly arisen unmet needs	7.8	9.1	7.6	10.3	7.0		8.3
Persistent unmet needs	16.8	14.7	16.0	22.2	21.1		18.0

Source: Authors' analysis of ELSA (Waves 8 and 9).

Discussion

This study observed significant unmet personal, practical and emotional care needs among older adults in England. The high level of *persistent* unmet personal care needs warrants more attention from policy makers and social care practitioners. Personal care combines a variety of forms of assistance for persons who require long-term help with basic ADLs. The widening gap between the need for social care and availability of support is reflected

Table 6.3: Logistic regression model predicting persistent unmet needs for personal, practical and emotional care

	Model 1 (N=713)		Model 2 (N=683)		Model 3 (N=4,075)	
	Persistent unmet needs of personal care		Persistent unmet needs of practical care		Persistent unmet needs of emotional care	
	OR	95% CI	OR	95% CI	OR	95% CI
Social networks type						
Diverse (ref)						
Friends-focused	1.24	0.70–2.19	2.26	0.82–6.24	1.07	0.80–1.44
Couple-centred	1.33	0.79–2.24	**2.68***	**1.09–6.60**	**1.46****	**1.10–1.95**
Children-centred	**1.95***	**1.12–3.39**	0.99	0.35–2.88	1.28	0.95–1.73
Restricted	1.07	0.62–1.84	1.42	0.51–3.95	1.21	0.90–1.62
Age						
65–74 (ref)						
75–84	0.76	0.53–1.09	0.94	0.52–1.69	**0.73*****	**0.60–0.88**
85+	**0.56***	**0.34–0.93**	**0.38+**	**0.14–1.04**	**0.58****	**0.42–0.82**
Gender						
Male (ref)						
Female	1.03	0.74–1.44	0.81	0.45–1.43	**1.51*****	**1.25–1.82**
Self-reported health						
Excellent/very good (ref)						
Good	1.14	0.61–1.45	0.45	0.14–1.47	**1.43*****	**1.16–1.78**
Fair/poor	1.51	0.83–2.74	0.99	0.36–2.76	**2.02*****	**1.58–2.57**
NS-SEC						
Professional (ref)						
Intermediate	0.94	0.62–1.45	0.82	0.37–1.81	0.95	0.75–1.19
Routine	**0.70+**	**0.47–1.04**	1.02	0.52–1.98	0.99	0.80–1.24
Wealth quintile						
Lowest (ref)						
2nd	0.75	0.47–1.21	0.69	0.32–1.47	1.04	0.78–1.38
3rd	0.95	0.55–1.46	0.93	0.42–2.02	1.03	0.78–1.38
4th	0.81	0.47–1.40	0.78	0.32–1.90	0.91	0.67–1.24
Highest	1.27	0.70–2.31	**0.24***	**0.06–0.92**	0.89	0.64–1.24
Living arrangements						
With someone (ref)						
Alone	**2.41*****	**1.66–3.51**	0.86	0.45–1.64	**4.24*****	**3.37–4.99**
Number of ADL and IADL difficulties	**1.15*****	**1.06–1.26**	0.90	0.77–1.04	**1.11*****	**1.05–1.18**

Source: Authors' analysis of ELSA (Waves 8 and 9).

Significance levels: + p<=0.1, * p<= 0.05, ** p <=0.01, *** p<=0.001.

in the magnitude of unmet care needs. The latest UK Census data show an overall decrease in the percentage of informal carers in the past decade, but a slightly higher percentage of people who provided intensive care (ONS, 2023). Meanwhile, the significant gap in the social care workforce remains (DHSC, 2021). Population ageing, particularly when the baby boom generations reach older ages after 2030, poses continuing challenges for policy makers in the provision of social care, not least because over a fifth of 'second baby boom generation' women (born in 1961–5) did not have a biological child (Evandrou and Falkingham, 2000).

We distinguished five social network types. Consistent with other studies, age, gender and SEP were linked to different network types (Stephens et al, 2011). As adults age, they may lose their ability to reciprocate instrumental support due to increased health and functional constraints and focus on close family members (Klein Ikkink and van Tilburg, 1999). Women have larger and more diverse networks (Fischer and Beresford, 2014), and people with lower SEP have smaller networks consisting mainly of family members (Antonucci et al, 2013).

Different networks have strengths and limitations vis-à-vis social care (Table 6.2). Diverse networks can meet all domains of care needs. Children-centred networks may meet practical care needs but are limited in meeting personal care demands. Couple-centred networks may meet personal care needs but are limited in meeting practical care needs, partly because such network relationships are embedded in normative expectations and obligations (Wenger, 1997) – spouses are more likely to provide emotional and physical support to the limit of their capacity, adult children to provide emotional support and instrumental help, while friends provide primarily expressive support or short-term emergency help. If there are no children, friends may provide more support. Our results support the social relations theories stressing the importance of multiple relationships and their functional specificity (Kahn and Antonucci, 1980; Carstensen, 1992).

The analysis uncovered that older adults in *Children-centred* or *Couple-centred* networks are relatively disadvantaged compared to those with *Diverse* networks in meeting social care needs over time regardless of their demographic, socioeconomic characteristics and health conditions (Table 6.3). It is widely believed that small dense family-based networks provide the most intensive personal care for the most extended periods, thereby avoiding unmet care needs. Nevertheless, since caregivers themselves are exposed to different stressors (such as other family responsibilities and work), their ability to meet the needs of older relatives may decrease over time (Pearlin et al, 1990). For older spousal carers, the decline in filial co-residence is likely to increase the intensity of care within the household (Beesley, 2006). Previous research found that family-intensive networks were the least supportive of all network configurations (Litwin and Landau, 2000),

while the availability of informal care resources may limit opportunities to access formal social services (Fernandez et al, 2015). It is essential not to generalise the findings because country-specific features, such as eligibility rules for social care and individuals' preferences, impact decision-making about care (Bakx et al, 2015).

Interestingly, *Friend-focused* and *Restricted* networks are shown as resilient as *Diverse* networks in terms of minimising persistent unmet needs in all three domains once considering the confounders. Given the significant prevalence (37 per cent) of these two types of networks among older adults, further studies are needed to explore how individuals cope with their social care demands. Some scholars argue that, unlike family ties, friendships result from free choice, facilitating greater autonomy and integration into the wider community (Litwin and Landau, 2000).

Older adults without kin nearby may turn to state or private care services (Saloniki et al, 2019), or their family members living at a distance may reconcile work/other responsibilities to provide informal care (Brimblecombe et al, 2017). A previous study indicated that individuals without a partner are more inclined to use formal care, although regional differences were observed in social networks and formal care utilisation (Fernandez-Carro and Vlachantoni, 2019). The results also revealed that older persons with poor health and those living alone reported persistent unmet needs, even when controlling for the network type, which should concern policy makers.

There are several implications from our analysis. First, the number of informal *and* formal carers will have to increase to reduce unmet needs, which means that good quality social care services, especially personal care, need to be more widely available, accessible and affordable (Brimblecombe et al, 2017). Second, policies will need to provide targeted assistance to vulnerable networks like Children-centred or Couple-centred groups by offering additional caregiving resources, supporting persons to stay at home and be healthy (Carers Trust, 2015). Simultaneously, efforts should enhance social inclusion in diverse networks through intergenerational activities and community engagement. Recognising the resilience of Friend-focused and Restricted social networks, policies also need to explore the factors contributing to such resilience and implement interventions to bolster their ability to meet social care needs effectively. Finally, further research is required on how older adults with different networks, particularly baby boomers, mobilise their social resources to cope with emergent care needs.

This study focuses on social network typology measured at single point of time. While structural indicators like the presence of children, family and friends tend to remain stable over time, functional aspects such as physical and digital contact are dynamic, indicating changing social networks (Steijvers et al, 2022). Reverse causality is a potential issue, as individuals with unmet needs may have smaller social networks, while lonely individuals may

lack strong social connections to access services, resulting in unmet needs (Chamberlain et al, 2023). Future research should consider social network changes and address reverse causality concerns.

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