

Socio-economic status differences in older people's use of informal and formal help: a comparison of four European countries

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ABSTRACT

This study investigates the variations by older people's socio-economic status (SES) (*i.e.* educational level and social class) in the use of informal and formal help from outside the household in Great Britain, Italy, Belgium and The Netherlands. In all these countries, it was older people in low SES groups who mostly used such help. Multinomial logistic regression analyses showed that, in each country and for both types of help, there were SES gradients in the utilisation of both formal and informal care, and that differences in age, health and marital status largely accounted for the former but not the latter. Cross-national differences in the use of both informal and formal help remained when variations in sex, age, SES, health, marital status, home ownership and the use of privately-paid help were taken into account. Significant interaction effects were found, which indicated that older people in low SES groups in Great Britain and The Netherlands had higher odds of using informal help from outside the household than their counterparts in Italy, and similarly that those in The Netherlands were more likely to use formal help than their Italian peers. The results are discussed in relation to the cultural differences and variations in the availability of formal services among the countries.

KEY WORDS – socio-economic status, informal help, formal help, old age.

Introduction

Given the strength of population ageing throughout Europe, formal care provision for frail older people has become a critical policy issue. Considerable research on older adults' use of both informal and formal

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sources of help with household tasks and personal care has shown that most who have help are in poor health, live alone and have low financial resources (*e.g.* Arber and Ginn 1993; Künemund and Rein 1999; Larsson and Silverstein 2004). It is widely assumed that the people who receive help are those who need it the most, particularly among the low socio-economic status (SES) groups, and studies have shown that variations in utilisation are largely explained by the relatively poor health and greater need for assistance in these groups (Almond *et al.* 1998; Crets 1996; Kempen and Suurmeijer 1991). When the multiple social and material disadvantages of older people in low SES groups are considered, the explanation of the differences is increased.

As cross-national studies have demonstrated, the use of help is also influenced by cultural norms and societal attributes, such as the availability of formal services (Davey and Pastios 1999; Habib *et al.* 1993; Motel-Klingebiel *et al.* 2005; Shea *et al.* 2003; Sundström 1994; Tomassini *et al.* 2003). Most have shown that the greater amount of help received by older people is provided by family members, and that there is considerable variation in the sources of help (Glaser *et al.* 1998; Sundström 1994; Walker and Maltby 1997). In Finland, for example, 24 per cent of elderly people used help from public services, compared with only one per cent in southern European countries (Kinsella and Velkoff 2001). Although there have been few cross-national comparisons, there is evidence that access to formal services among older people in the low SES groups varies considerably by country (Shea *et al.* 2003; Tomassini *et al.* 2003). The aim of this paper is to investigate SES inequalities in older people's use of informal and formal help from outside the household in Great Britain, Italy, Belgium (Flanders) and The Netherlands, and to provide a multi-dimensional explanation that incorporates both individual and national characteristics. More precisely, the analysis investigates:

1. Socio-economic inequalities in the use of informal and formal help in the four countries.
2. The extent to which national socio-economic inequalities remain once health and other relevant individual factors are taken into account.
3. The extent to which cross-national socio-economic inequalities remain once national differences in individual factors are controlled for.

Conceptual framework

The conceptual framework for the influence of SES factors on the use of help among older people was adapted from Andersen and Newman (1973)

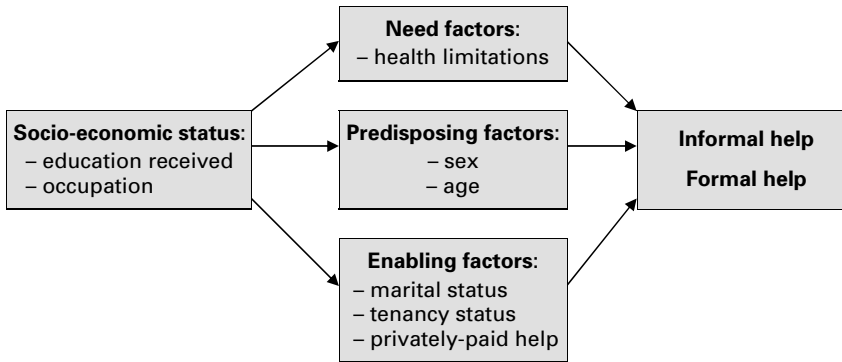


Figure 1. Associations between socio-economic status and the use of informal and formal help.

and is shown in Figure 1 (see also van der Meer 1998). It implies that the use of help has two components: *informal help*, *i.e.* assistance with personal care and household tasks from family, friends and neighbours; and *formal help*, *i.e.* assistance from public social services, such as meals-on-wheels, home help and health visitors. Andersen and Newman (1973; Andersen 1995) suggested that the use of help is affected by the individual's needs and by predisposing and enabling factors. In line with van der Meer (1998), it is proposed that socio-economic differences in the propensity to use help are related to: (a) SES inequalities in health, or the likelihood of being in poor health and therefore in need of help (*i.e.* the need factors); (b) differences in the demographic structure of the various SES groups, particularly their genders and ages, which influence the predisposition to use help (*i.e.* the predisposing factors); and (c) the greater availability of social and material resources among higher SES groups, such as the availability of spouses and children who can and will provide care and have the ability to purchase assistance privately (*i.e.* the enabling factors). In addition to SES and other individual attributes, variations in the use of help are also likely to reflect national or societal differences in: (a) welfare policies regarding the availability, cost and quality of service provision for older people; and (b) cultural factors, particularly beliefs and norms about family behaviour. Each of these is described more fully below.

Socio-economic status and the use of help

In general, the single nation studies that have examined the relationship between SES and the use of help among older people have found negative associations between SES and informal help from kin and the use of formal services, and a positive association with privately-paid help

(Almond *et al.* 1998; Broese van Groenou and van Tilburg 2003; Larsson and Silverstein 2004), while recent cross-national comparisons have found no statistically significant relationships between SES indicators and the use of informal or formal help (Shea *et al.* 2003; Motel-Klingebiel *et al.* 2005). Moreover, SES appears to behave in different ways in different societies, *e.g.* the association between higher income and living alone among older people is not found in all countries (Wolf 1995). Home ownership and high education (two proxies for high social status) have been shown to be strongly and positively associated with co-residence in Italy but not in Great Britain (Glaser and Tomassini 2000). In addition, United States research on the relationship between ethnicity (a proxy for SES in that country) and the use of help has shown that White older people were more likely than African-American older people to have help from children, whereas the latter were more likely to have help from non-kin (*e.g.* friends, neighbours or co-workers) (Hatch 1991).

Individual determinants: need, predisposing and enabling factors

There is considerable evidence from many countries that unfavourable socio-economic circumstances are strongly related to high morbidity and mortality (Goldblatt 1990; Kunst *et al.* 2005), that socio-economic differences in health persist into old age (Dahl and Birkelund 1997; Marmot and Shipley 1996; Martelin *et al.* 1998), and that health status is one of the strongest predictors of the use of both formal (Kempen and Suurmeijer 1991; Crets 1996) and informal help (Almond *et al.* 1998; Pickard *et al.* 2000). The general understanding is that people in low SES groups receive more informal and formal help because of their relatively high *need* for assistance, as most overtly indicated by their poor health. Because women and the oldest age groups are more likely to use informal and formal help, sex and age are often used as indicators for the *predisposing* factors (*e.g.* Arber and Ginn 1993; Tomassini *et al.* 2003). Because women and those in the oldest age groups are the most likely to be in the low SES groups (especially in its material dimensions), SES differences in help received may be partially explained by the gender and age composition of the recipients.

Whether older people use help from family members or not depends on the *enabling factors* that affect their availability. As a spouse is an important source of support in later life, marital status is influential. Its distribution in the older population is determined largely by past patterns of first marriages and the incidence and duration of widowhood and divorce (Murphy and Grundy 1994). Research has shown considerable SES differences in marriage and divorce. In Great Britain, for example, women

in the high SES groups are the least likely to marry, whereas among men the inverse is the case, because a relatively high proportion of men in low SES groups never marry, and because divorce is most common among men and women in low SES groups (Coleman and Salt 1992). As at any particular age, men in low SES groups have relatively short life expectancies, while older women in low SES groups at any particular age are relatively likely to be widowed. Marital status and the availability of kin are also associated with older people's living arrangements. Households in low SES groups are more likely than those in high SES groups to have children living at home or in close proximity (Greenwell and Bengtson 1997). As individuals in low SES groups are more likely to be widowed or divorced and to live close to kin than those in high SES groups, they are more likely to use formal and informal help.

Another *enabling* factor is the use of privately-paid help, which decreases the dependency on informal and formal help. Its use is strongly related to income and wealth, the underlying enabling factors. In many countries, formal help services are means-tested, *i.e.* individuals with low income pay less for formal help. Because older people in low SES groups are less able to purchase privately-paid help and their use of formal services is subsidised, they are the most likely to use both informal and public-sector help. Income is often used as an indicator of the material dimension of SES, whereas educational level and occupational prestige reflect its cognitive and cultural dimensions, but all three are highly correlated (Grundy and Holt 2001). The SES indicators used in this study are educational level in Italy, Belgium and The Netherlands, and social class in Great Britain, while the material dimension is also represented by home ownership. Those in low SES groups are most likely to be renters (rather than owners) of their homes, and their tenure may be associated with a high level of formal help. Income would have been a better indicator of access to formal help, but income data were not available from all the surveys.

Societal determinants

Old-age welfare policies vary greatly across Europe and have resulted in substantial differences in public expenditure on pensions and health care, in the provision of formal services, and in the financial and instrumental support of family care (Habib *et al.* 1993). For example, public expenditure on pensions varies from four per cent of the Gross Domestic Product (GDP) in Ireland to 15 per cent in Italy (Kubitza 2004). There is also considerable variation in the proportion of GDP that is devoted to public health-care, from five per cent in Greece to eight per cent in Germany (Organisation for Economic Co-operation and Development 2002). The

availability of long-term care (both residential and domiciliary) also varies greatly, with northern European countries, exemplified by Denmark and Sweden, having more extensive public provision for frail older people and higher proportions living in institutions than southern Europe countries (Hugman 1994; Pacolet *et al.* 1999; Motel-Klingebiel *et al.* 2005). One would expect access to formal care to be more widespread and related to needs (rather than income) in northern and western than in southern Europe, and therefore that the SES gradient in formal care would be less pronounced in Great Britain, The Netherlands and Belgium than in Italy.

The socio-cultural tradition of a country clearly plays a major role in moulding its pattern of inter-generational assistance (Glaser and Tomassini 2000; Hareven 1996). The relatively high prevalence of multi-generational households in southern Europe is customarily explained by reference to a strong 'familistic culture' in which, it is said, personal utility and family utility are equivalent: the structure of the family and the relationships among the members are characterised by strong ties. For example, inter-generational co-residence in Italy tends to continue until children leave the parental home to marry; even then, most live close to their parents (Glaser and Tomassini 2000). In northern Europe there is a stronger individualistic culture, involving looser and less geographically-close family ties, more emphasis on voluntary relationships and a greater preference for independent living. Recent research has shown that friends are becoming more important in older people's 'personal communities' (Phillipson *et al.* 2001). It is hypothesised that the provision of informal care from outside the household is more variable in individualistic than in familistic societies, leading to steeper SES-gradients in informal care in Great Britain, Belgium and The Netherlands than in Italy.

Data and methods

Survey samples

The study employed four datasets: in Great Britain, the Office for National Statistics (ONS) 2001 *General Household Survey* (GHS); in Italy, the National Institute of Statistics 1998 *Indagine Multiscopo sulle Famiglie e Soggetti Sociali* [*Multipurpose Survey on Family and Childhood Conditions*] (IMF); in Flanders, the 2001/02 *Leefsituatie Onderzoek Vlaamse Ouderen* (LOVO) [*Study of the Living Arrangements of Flemish Older People*]; and in The Netherlands, the 1998 wave of the *Longitudinal Aging Study Amsterdam* (LASA). A key task was to assess the comparability of the four surveys' measures and variables,

which begins with an understanding of their design and sampling procedures.

The GHS of Great Britain is a continuous, nationally-representative household survey that began in 1971 (Walker *et al.* 2002). Each year it surveys 10,000 private households and undertakes around 18,000 interviews with people aged 16 or more years. This paper draws on the 2001 survey, the most recent to ask people aged 65 or more years a module of questions on their living circumstances, health, ability to manage various self-care and domestic tasks, and use of health and personal social services. Its sample was 16,685 people aged 16 or more years, including 3,129 people aged 65 or more years who answered the 'old age' questions. In Italy, the IMF is a quinquennial household survey of the family relations of people living in the community. It has a sample of over 59,000 people, including 7,972 aged 65 or more years. The survey includes questions on household structure, demographic background, housing and life histories. Most relevant to this paper is a section on family exchanges that includes: household composition, kin availability, interaction with non-coresident children, siblings, parents, care provision and care received. In Belgium, the LOVO was a representative survey of 2,462 people aged 55–90 years living in private households in Flanders, and its sample was stratified by age and sex (Jacobs, van der Leyden and van den Boer 2004). It used face-to-face interviews to collect information on health, family relationships, and the use of help with personal and domestic tasks. The analysis reported in this paper is based on the 1,596 respondents aged 65 or more years. In The Netherlands, LASA is a longitudinal study that focuses on the physical, social, cognitive and psychological functioning of Dutch older adults (Deeg *et al.* 2002). Its data collection is principally through interviews every three years with a nationally-representative sample of, at baseline in 1992, 3,107 people aged 55–85 years. For this study, data from 1,592 respondents in the 1998 wave were used.

The dependent variables

The 'use of help' is difficult to operationalise in a comparative study because of differences in survey practice among the countries. The adopted dependent variable was constrained by the Italian survey, which did not ask respondents about help received from members of the respondent's household, and it was therefore necessary to analyse only the help received from *outside* the household. For each national dataset, two dichotomies were created as dependent variables: the use of help from formal sources, and the use of help from informal sources. As use

of the two types is inter-related, a summary dependent variable was constructed. Although initially it had four categories (1 = no help at all, 2 = only informal help, 3 = only formal help, 4 = both informal and formal help), because few respondents were in the last category, '3' and '4' were combined to leave three categories of help.

There were other national variations in the specification of the help received. For Great Britain, the 2001 GHS asked all adults aged 65 or more years a set of questions about their ability to manage the Activities of Daily Living (ADL) and the Instrumental Activities of Daily Living (IADL). Two dichotomies were created to indicate whether the respondent had received help with any ADL or IADL from: (1) family members living outside the household or friends or neighbours, and (2) social or health-care services. In addition, those who reported the use during the last month of a district nurse or health visitor, meals-on-wheels, or home help for older people were coded as having received help from social or health services (although some may have been provided by voluntary organisations).

The Italian respondents were asked if help was used by all household members and, if not, which member was the principal recipient. Questions on care receipts were asked with regard to 'the main help episode' during the previous four weeks, as perceived by the respondent. The help referred to was: health assistance (*e.g.* injections, medications and dressings), help with ADLs and IADLs, and domestic help. The respondents were then asked to nominate the most important type of help and who provided it: family members, friends and neighbours (defined as informal help), or formal services. Help from formal sources was also measured by an additional question about the receipt of public services (*e.g.* meals-on-wheels, home cleaning, nurse help, physiotherapist) by the family (or main recipient) during the 12 months before the interview.

The questions in the Flanders survey were comparable with those asked in Great Britain about ADLs and IADLs (preparing meals, light household work, heavy household work, getting dressed, washing, and feet care). The respondents were asked whether they could do these activities themselves or had help from anyone else. 'Informal' help was specified as from family members outside the household, neighbours and friends. The receipt of help from a nurse or professional carer defined formal help. In The Netherlands, LASA had two questions about the use of help: 'From whom do you receive assistance with personal care (*e.g.* bathing, washing, dressing)?' and 'From whom do you receive help with domestic tasks (*e.g.* shopping, cooking, gardening, filling out forms)?' Help from family members outside the household, neighbours and friends

was counted as informal help. Help provided by home-care services, nursing homes or hospitals defined formal help.

The independent variables

Socio-economic status (SES) was indicated in Italy, Belgium and The Netherlands by the level of education received, and in Great Britain by socio-economic group based on the occupation of the head of household. To retain comparability, respondents with high education were distinguished from those with medium and low levels. For Italy, those who had not completed primary-school education were placed in the low category, those who completed primary or intermediate school in the medium category, and those who completed secondary school or university in the high category. In The Netherlands and in Belgium, the respondents who received no more than primary-school education were placed in the low category, those who completed intermediate education in the medium category, and those who completed general secondary education or a university course in the high category. For Great Britain, occupational level is used because the GHS does not ask individuals aged 70 or more years their educational background. To classify British individuals by socio-economic group, the *National Statistics Socio-economic Classification* (NS-SEC) was used. Its occupational groups are based on the head of household's current occupation or, for those not in paid work, the last job held (Walker *et al.* 2000). The respondents were divided into those with routine/manual occupations (1 = low SES), intermediate occupations (2 = medium SES), and managerial and professional occupations (3 = high SES).

The SES distributions varied by country. The percentages of the survey samples in the low SES group were relatively large in Belgium (55), Great Britain (52) and The Netherlands (40), but lower in Italy (29). The percentages with high SES were relatively high in Great Britain (30) and Belgium (25) and lower in The Netherlands (14) and Italy (13). The different SES distributions in the country samples must be taken into account when interpreting the SES differentials in the use of help.

A binary variable indicated whether or not the individual was aged 75 or more years (0 = 65–74, 1 = 75+). Gender was also coded as a binary variable with men in the reference category (0 = male, 1 = female). In all surveys, the respondents reported whether they had a long-standing illness, infirmity or disability and, if so, whether it limited their activities in any way (0 = no health problems, 1 = presence of limiting health problems). Marital status had four categories (0 = never married, 1 = married or cohabiting, 2 = separated or divorced, 3 = widowed). Income measures

were not available or comparable, so home ownership was adopted as the index of material well-being (Almond *et al.* 1998). For all four countries, a dichotomy distinguished owner-occupiers from those in other tenures (0 = owner, 1 = tenant or other). In Great Britain and The Netherlands, most non owner-occupiers were social-housing tenants, whereas in Italy most were private renters, and in Belgium they were both private renters and social-housing tenants. Based on the information concerning who from outside the household provided help, a dichotomy was created to indicate whether or not privately-paid help with domestic tasks or with ADLs or IADLs was used (0 = no private help, 1 = private help).

Analyses

To address the study's first research question, chi-squared tests were made of the national differences in the use of informal help and of formal help received from outside the household by SES and by all the explanatory variables (sex, age, marital status, home ownership and privately-paid help). The second research question was addressed using multinomial logistic regression, the dependent variable being 'the use of help'. As few respondents used both formal and informal help (<5% in all four countries), they were added to the 'formal help' category. The reference category was 'no use of help'. To investigate inequalities by SES in the use of informal and formal help, the analyses were conducted for each country separately.

The third research question, whether cross-national differences in the use of informal help and formal help remained when SES and other variables were controlled, was examined using a multinomial logistic regression on the pooled data set, with again 'no use of help' as the reference category. A three-step procedure was used. The first model had dummy variables for Great Britain, Belgium and The Netherlands, with Italy the reference category. The second model included all the remaining independent variables (*e.g.* sex and age). The third model examined the interaction effects between the SES dichotomy (low or medium/high) and country.

Results

The characteristics of the four national samples varied (Table 1). The Italian had the lowest proportion aged 75 or more years (39%) and of those in poor health (22%), whereas in the Dutch sample, 49 per cent were aged 75 or more years and 49 per cent were disabled. The female

TABLE 1. Socio-demographic characteristics of the sample and the percentages using help by socio-economic status and country

Attribute and category	Country and socio-economic status															
	Great Britain				Italy				The Netherlands				Belgium			
	Low	Middle	High	All	Low	Middle	High	All	Low	Middle	High	All	Low	Middle	High	All
Sample characteristics	<i>Percentages</i>															
Women	57	61	50	56***	68	53	44	56***	72	46	38	55***	55	45	42	49***
Aged 75+ years	45	45	39	43**	51	34	33	39***	54	47	44	49**	56	45	44	51***
Marital status:																
Never-married	6	8	6	6	7	7	10	7	4	4	7	4	4	5	6	5
Married	51	50	70	57	50	62	66	59	44	62	59	55	59	66	64	62
Separated/divorced	6	7	4	6	1	2	3	2	5	5	11	6	3	3	3	3
Widowed	37	36	20	31***	42	30	21	32***	47	29	24	36***	34	27	27	31 [#]
Disabled	43	40	34	40***	31	20	14	22***	45	37	31	49***	46	42	34	42***
Non-owner	41	20	12	29***	25	22	16	23***	62	56	44	57***	29	24	21	26**
Use of help																
None	69	75	86	75	83	90	94	88	61	78	77	72	66	75	77	70
Informal only	21	15	7	15	12	7	5	8	17	8	4	11	14	9	7	12
Formal only	5	6	5	5	3	2	1	3	18	13	9	15	16	13	13	15
Informal and formal	5	4	2	4***	1	1	0	1***	5	1	1	3***	4	3	3	3***
Privately-paid	9	18	22	14***	5	7	25	9***	13	22	44	22***	5	11	24	11***
Sample size	1,619	561	947	3,127	2,282	4,679	1,011	7,972	638	724	217	1,579	882	311	402	1,595

Significance levels: Chi-squared or *t* test, *** $p < 0.001$, ** $p < 0.01$, # $p = 0.13$.

married and widowed proportions were comparable across the samples. One-quarter or more of the respondents in Great Britain (25%), The Netherlands (28%) and Belgium (30%) received either informal or formal help from outside the household, but in Italy less than one-eighth did so (12%). In general, more respondents received informal than formal help. The proportion that received only formal help was comparatively low in Great Britain (5%) and Italy (3%) and relatively high in The Netherlands (15%) and Belgium (15%).

Variations in the use of help by socio-economic status and other factors

Across the four countries, the respondents in the low SES group had similar characteristics and were preponderantly female, over 75 years of age, widowed, in poor health, not owner-occupiers and not receiving privately-paid help (Table 1). In all four countries, the respondents in the low SES group received more informal help than those in the high SES group (e.g. in Great Britain, respectively 21% and 7%) (Table 1). The steepest SES gradient in the use of formal help was in The Netherlands, where 18 per cent of respondents in the low SES group received such help compared with nine per cent of respondents in the high SES group.

Determinants of the use of informal help within countries

The multinomial logistic regression analyses confirmed the SES differences in the use of informal help (Table 2). As the results of Model 1 show, in all four countries, respondents in the low or medium SES groups were more likely to be in receipt of informal care from outside the household than those in the high SES group. The SES differences were greatest in The Netherlands and least in Belgium. Dutch older people in the low SES group had nearly six times the odds of receiving informal help from outside the household than those in the high SES group, and the comparable ratios in Great Britain, Italy and Belgium were respectively 3.7, 2.9 and 2.3. Even the different rates of help for respondents in the middle and high SES groups were statistically significant in Great Britain, Italy and The Netherlands. After the explanatory variables were entered into the regression (Model 2), the overall SES differences decreased in all four countries, but those between respondents in the low and high SES groups remained statistically significant in all countries except Belgium.

In all four countries, age, health and marital status were strongly associated with the use of informal help: being aged 75 or more years, being disabled and being single or widowed (as opposed to married) increased the odds of receiving informal help from outside the household. In Great Britain and The Netherlands, the divorced also had a significantly

TABLE 2. *Multinomial logistic regression of determinants of the use of help by country*

Model and variable	Country and type of help received															
	Great Britain				Italy				The Netherlands				Belgium			
	Informal help		Formal help		Informal help		Formal help		Informal help		Formal help		Informal help		Formal help	
OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	
MODEL 1																
SES (reference 'high')																
Low	3.68	2.78–4.86	1.75	1.31–2.35	2.91	2.10–3.99	3.60	2.05–6.33	5.84	2.89–11.8	3.13	1.94–5.07	2.34	1.22–4.46	1.50	0.95–2.39
Middle	2.42	1.72–3.42	1.57	1.08–2.27	1.55	1.13–2.11	2.52	1.45–4.37	2.10	1.02–4.32	1.60	0.98–2.60	1.28	0.65–2.55	1.00	0.62–1.63
MODEL 2																
SES (reference 'high')																
Low	2.13	1.56–2.89	1.32	0.93–1.88	2.03	1.44–2.85	3.05	1.67–5.55	3.71	1.75–7.85	1.62	0.93–2.85	1.60	0.81–3.15	1.00	0.60–1.68
Middle	1.50	1.03–2.17	1.14	0.75–1.72	1.48	1.07–2.05	2.92	1.65–5.18	1.75	0.82–3.71	1.13	0.65–1.96	1.19	0.59–2.42	0.95	0.56–1.63
Female	1.60	1.26–2.04	1.30	0.97–1.73	1.09	0.89–1.32	1.12	0.83–1.51	0.80	0.54–1.18	0.77	0.53–1.07	1.05	0.74–1.50	1.31	0.96–1.78
Aged 75+ years	1.91	1.52–2.40	3.84	2.83–5.21	1.64	1.37–1.97	2.37	1.77–3.18	2.40	1.68–3.43	6.12	4.33–8.65	2.72	1.90–3.90	3.80	2.76–5.24
Non home-owner	1.96	1.55–2.47	2.33	1.74–3.10	1.43	1.19–1.72	1.17	0.88–1.56	0.55	0.39–0.79	1.01	0.73–1.40	1.20	0.83–1.73	1.40	1.02–1.91
Disabled	3.12	2.50–3.90	5.12	3.83–6.85	3.61	3.03–4.30	5.41	4.11–7.11	2.01	1.42–2.85	3.54	2.60–4.82	1.97	1.42–2.75	3.25	2.43–4.35
Marital status (ref: 'married')																
Never-married	2.94	1.88–4.59	3.68	2.27–5.98	1.74	1.28–2.37	1.83	1.17–2.87	4.38	2.05–9.37	3.16	1.58–6.33	2.13	1.03–4.42	1.99	1.06–3.74
Separated/divorced	3.78	2.50–5.75	1.30	0.66–2.56	0.72	0.31–1.67	1.93	0.84–4.44	2.95	1.40–6.21	1.42	0.69–2.92	2.24	0.91–5.50	1.43	0.58–3.55
Widowed	5.02	3.85–6.54	3.21	2.32–4.45	1.83	1.50–2.25	1.42	1.03–1.94	5.38	3.54–8.17	3.82	2.66–5.50	2.25	1.53–3.30	2.29	1.65–3.18
Privately-paid help	0.67	0.48–0.94	2.04	1.48–2.83	1.60	1.24–2.08	3.28	2.40–4.50	0.28	0.17–0.48	0.19	0.12–0.30	0.24	0.11–0.50	0.44	0.27–0.70
Sample size	3,129				7,992				1,579				1,596			

Notes: Formal help includes users of only formal help and of a combination of formal and informal help; the reference category is 'no use of help'. OR – odds ratio. CI – confidence interval.

higher rate of informal help. Many married people can rely on informal help from their spouse, and consequently have less need of help from outside the household. Unmarried persons do not necessarily live alone, however, and many Italian and Belgian widowed and single (never married) people shared a household with others (*e.g.* siblings), and presumably could therefore draw on informal care from within the household. In Great Britain and The Netherlands, a large majority of the unmarried lived alone, which may explain their relatively high odds for receiving outside help.

There were several interesting country differences. Gender differences were significant only in Great Britain, where women were more likely than men to receive informal care from outside the household (as found in previous analyses, *e.g.* Glaser and Grundy 2002; Tomassini *et al.* 2003). As more older women than men are widowed, of advanced age and disabled, the gender effect may be reduced in multivariate analyses that control for marital status, age and disability. Secondly, there were considerable differences in the role of home ownership. People who did not own their home had significantly higher odds of receiving informal help in Great Britain and Italy, but significantly lower odds in The Netherlands. Given the well-documented association between tenure status and economic circumstances, the British and Italian results were as expected (Almond *et al.* 1998). In The Netherlands, tenure reflects income, but there is no clear explanation why home-owners, who generally have relatively high incomes, received more informal care than non-owners. There were also country differences in the relationship between informal help and the use of privately-paid help. In Great Britain, The Netherlands and Belgium, privately-paid help decreased the odds of informal help, suggesting that they substitute. In Italy, however, those using privately-paid help had higher odds of using informal help, suggesting that the two forms are reinforcing.

Determinants of the use of formal help within countries

In all four countries, the respondents in the low SES group had higher odds of receiving formal help than those in the high SES group (Table 2). In Italy and The Netherlands, the odds ratios (OR) were substantial (respectively 3.6 and 3.1). The SES differences decreased in Model 2 with the explanatory variables (*e.g.* Italy OR = 3.0), and became insignificant in The Netherlands (OR = 1.6). In Great Britain, the unadjusted odds were low (1.7), and became insignificant with the explanatory variables. In Belgium, there were no SES differences in formal help. In all four countries, age and poor health were strongly associated with the use of

formal help. In Great Britain and Belgium, those who were not owner occupiers had higher odds of formal help, but this was not replicated in Italy or The Netherlands. The never-married and widowed had higher odds of receiving formal help than the married in all four countries, and there was no difference between the divorced and married. The use of privately-paid help was positively associated with the use of formal help in Great Britain and Italy, but for The Netherlands and Belgium the inverse was found. No gender effects were found in any country.

Cross-national comparisons

Compared to the Italians, British older adults had 2.2 times the odds of using *informal help* from outside the household (Table 3, Model 1). The comparable odds ratios for the Belgian and Dutch respondents were respectively 1.7 and 1.8. These odds ratios decreased slightly when the explanatory variables were taken into account but remained statistically significant (Table 3, Model 2). Table 3 also presents the significant interaction effects in Model 3 between SES and country: respondents in the low SES group in Great Britain and The Netherlands had higher odds of using informal help from outside the household than those in Italy (respective ORs 1.5 and 1.8). The odds of the explanatory variables remained statistically significant. The results imply that respondents in the low SES groups in Great Britain and The Netherlands who were older, unmarried, in poor health and without privately-paid help, had higher odds of receiving informal help from outside the household than Italian older people with the same attributes. It can be concluded that the SES inequalities in informal help from outside the household were larger in Great Britain and The Netherlands than in Italy or Belgium.

With respect to the use of *formal help*, the differences by country were large. The odds ratios for the Belgian and Dutch respondents in comparison with the Italians exceeded 6.2, and the British odds ratio was 3.3 (Table 3, Model 1). Once the explanatory variables were taken into account, the differences between Italy and the other countries slightly decreased but remained large (Model 2). The interaction effect was significant only for The Netherlands, showing that respondents in the low SES group had higher odds of using formal help than the Italians. Although the country differences remained large and significant, the non-significance of other interaction effects suggested that the SES-gradient in formal help was large in The Netherlands, but comparable in Great Britain, Belgium and Italy. In addition, poor health, being aged 75 or more years, renting a home, and being never-married or widowed, were important for explaining the use of formal help, regardless of country.

TABLE 3. *Multinomial logistic regression on country differences in the use of help; unadjusted, adjusted and interaction effects*

Model and terms	Informal help		Formal help	
	OR	95% CI	OR	95% CI
Model 1				
Great Britain	2.21	1.95–2.51	3.28	2.76–3.89
The Netherlands	1.66	1.39–1.98	6.22	5.19–7.44
Belgium	1.75	1.47–2.09	6.77	5.67–8.08
Model 2¹				
Great Britain	1.83	1.60–2.11	2.81	2.33–3.76
The Netherlands	1.31	1.08–1.60	4.77	3.90–5.83
Belgium	1.50	1.24–1.81	5.83	4.80–7.09
Model 3				
Great Britain	1.49	1.21–1.84	2.55	1.98–3.28
The Netherlands	0.75	0.75–1.33	3.73	2.86–4.86
Belgium	1.44	1.07–1.94	5.40	4.10–7.11
Female	1.15	1.01–1.31	1.07	0.92–1.24
Aged 75+ years	1.89	1.68–2.14	3.60	3.09–4.19
Low SES ²	1.34	1.12–1.59	0.97	0.75–1.27
Non home-owner	1.36	1.20–1.54	1.50	1.30–1.74
Disabled	2.88	2.56–3.23	4.22	3.68–4.86
Marital status: ³				
Single	2.29	1.83–2.88	2.55	1.96–3.31
Separated/divorced	2.18	1.63–2.91	1.33	0.91–1.94
Widowed	2.83	2.46–3.25	2.40	2.04–2.82
Privately-paid help	0.79	0.66–0.94	1.14	0.95–1.36
Interaction terms: SES by country:				
Low by Great Britain	1.49	1.12–1.97	1.29	0.89–1.87
Low by The Netherlands	1.80	1.22–2.63	1.80	1.22–2.67
Low by Belgium	1.14	0.76–1.67	1.24	0.84–1.83

Notes: Sample size 12,676. Formal help includes users of only formal help and of a combination of formal and informal help; the reference category is no use of help. OR – odds ratio. CI – confidence interval. SES – socio-economic status. The reference country in all models was ‘Italy’. 1. Model 2 was adjusted for sex, age group, tenancy status, health, marital status, and the use of privately-paid help. 2. Reference category is ‘middle or high SES’. 3. Reference category is ‘married’.

Discussion and conclusions

Limitations of the study

The presented analyses have several important limitations. The cross-national comparisons have been hampered by the unavailability of exactly comparable indicators of SES and help received. The SES measure for Great Britain was socio-economic group based on former occupation, while in the other countries a duration or level of education measure was used (but cannot erase the differences in the national education systems). The different national measures may account for some of the differences in the SES distributions of older people (Table 1). The British distribution

had an unusually high proportion of older people in the high SES category, which may have under-estimated the British SES gradient in help received. In Italy and The Netherlands, the proportions with high SES were relatively low, which may have over-estimated the differences between the (larger) low SES group and the high SES group. Also, the implications of being in the low SES group may have varied. For example, widowed persons in the low SES group were most likely to have lived alone in The Netherlands and Great Britain but to have shared a household in Italy and Belgium. Despite the different measures, the reported SES differences were remarkably similar in the four countries, particularly with respect to gender, age and health status, which suggests that the needs, predisposing and enabling characteristics of older people in the low SES group were comparable.

Another limitation lies in the different measures of the use of formal and informal help. The British and Belgian surveys defined the use of help by asking questions about whether the respondents received help with specific ADLs and IADLs, but the Dutch questions on help were more general and did not specify the type; one result may be that the reported use of help is systematically greater in the British and Belgian surveys. Despite these differences, the proportions reporting the use of help were very similar in the three countries. The Italian survey asked the respondents about the help that they considered 'most important'. If the respondents placed a greater value on the help provided by informal sources, this may have led to under-reporting of formal help (even though it was the subject of a separate question on professional home-help or health-care provision).

Conclusions

This study of cross-national patterns in SES inequality in the use by older adults of informal and formal help from outside the household in Belgium, Great Britain, Italy and The Netherlands supports five major conclusions. First, in all four countries, older people in low SES groups reported the greatest use of informal *and* formal help, but the SES differences varied by type of help and by country. The SES inequalities in the use of *informal help* were greatest in The Netherlands, followed by Great Britain and Italy, and lowest in Belgium, while those in the use of *formal help* were by comparison relatively small in all countries and least in Great Britain and Belgium. The significant interaction effects between SES and country indicate that SES inequalities in help received were relatively large in The Netherlands and Great Britain (only informal help), and small or absent in Italy and Belgium.

Second, being aged 75 or more years, in poor health and never-married or widowed partially explained in all countries the SES differences in the receipt of *formal help*, but in all countries except Belgium accounted for little of the variation in the use of *informal help*. Being in poor health, older, never-married or widowed and in the low SES group increased the use of formal and informal help in every country. These findings indicate that national variations in the receipt of help can largely be explained by the three sets of factors proposed by Andersen and Newman (1973): need, predisposing factors and enabling factors. The lack of explanation of the SES differences in informal help may be because the independent variables were too general to capture the critical influences (especially of the predisposing factors). Predisposing factors are probably affected by the attitudes and norms that govern expectations of family help. High filial obligations are positively associated with receiving care from children (Campbell and Martin-Matthews 2003). The relatively strong sense of filial obligation among low SES families would explain the high level of informal help for low SES older parents (Broese van Groenou 2004). The present study has confirmed the influence of general indicators, such as health, sex, age and marital status, on SES differentials in the use of help, but to deepen our understanding of the operation of the enabling and predisposing factors, more refined indicators are required.

Third, the size of the SES gradient and the explanatory power of socio-demographic and health characteristics varied by type of help. In each country, SES inequalities in the use of informal help were greater than those for formal help. Given the large differences across the four countries in the availability of professional help, the low SES inequality in the use of formal help was unexpected. The results suggest a general rule, that professional care is available for all groups in society irrespective of the welfare regime. It has also been shown that in all four countries, disability had a stronger relationship with formal than informal help, which suggests that formal help is needs-driven, whereas informal help is influenced more by the enabling factors and the availability of family members (Table 2). More information about family structure and characteristics (*e.g.* the proximity of children) would provide additional predictors of the use of informal care.

Fourth, cross-national differences in the use of formal help remained large even after controlling for the explanatory variables. Analysis of the interaction effects showed that the association between SES and formal help only differed between Italy and The Netherlands, largely because of the relatively large SES-inequality in the use of formal help in The Netherlands. The reduced impact of SES on formal help in the multivariate analysis corroborates the findings of other cross-national studies

(Shea *et al.* 2003), and suggests that country variation in the relationship between SES and help received does not fully explain the differences in the use of formal help. Some of these differences may be accounted for by a country's welfare regime. In Italy, for example, the low use of formal help accords with its 'familistic welfare regime', whereas the high use of formal help in The Netherlands and Belgium is consistent with their 'mixed conservative and liberal welfare regime' and the relatively high provision of means-tested, public-sector services. The relatively low use of formal help in Great Britain may be explained by its 'liberal welfare regime' that creates a need to purchase care in the private market. Only for Italy did the socio-economic differences in the use of formal help remain after adjusting for both the individual level determinants and the SES-gradient in the use of informal help. A possible explanation is that a very low proportion of older Italians (3%) used formal help, and they may be a homogeneous group of particularly frail older people most in need of help. The absence of SES differentials in the use of formal help in Belgium indicated that formal services were widespread and available to all. These results do not make clear which type of welfare regime increases (or decreases) SES-inequality in the use of help. Indicators of the type of welfare regime, such as the allocation of formal care services and cultural attitudes regarding the use of informal care, were not available. To further our understanding of how SES-inequality in the use of help is associated with the type of welfare regime, such national characteristics should be included in future cross-national research.

Fifth, the association between privately-paid and formal help differed in Great Britain and Italy as compared with that in The Netherlands and Belgium. The implication is that in more traditional welfare state regimes, such as Belgium and The Netherlands, formal help may be provided when other sources of help (including family help and privately-paid help) are not available. By contrast, in the familistic regime of Italy, privately-paid help appeared to supplement help from family and formal services. In this respect, it is important to remember that informal help refers only to assistance received from *outside* the household – other studies have shown high levels of co-resident care in Italy and other southern European countries (*e.g.* Tomassini *et al.* 2003). The Italian government has recently revised the legislation on 'Care Allowances', by which a person who cares for a co-resident relative can now receive the benefit. Help from formal services is particularly needed by older people who live alone and depend on help from persons *outside* the household. Such collaboration between formal and privately-paid help was also found in Great Britain where, given the relatively limited supply of public services in its liberal welfare regime, people with disabilities drew help from various sources. Recent

work in this issue shows that many older adults in Sweden use help from various sources, particularly those with the greatest needs (Sundstrom, Malmberg and Johansson 2006). This suggests that, in the various types of welfare states, formal help in general supplements informal help and privately-paid help, except for specific groups of older people, those with great needs and those lacking the resources to mobilise informal or privately-paid help.

In conclusion, socio-economic differences in the use of informal and formal help were found in all four countries and the modelled explanations for these differences were comparable. Because of their relatively poor health and lack of social and material resources, people in the low socio-economic status group received more informal and formal help than those of in the high SES group in all the countries. The variations in the combination of informal, formal and privately-paid help in these countries suggests that the type of welfare state regime influences the use of informal and formal help by older persons in need.

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