



Gender differences in old-age poverty in 14 EU countries: exploring the role of household structure

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Abstract

The risk of poverty among older people varies widely across countries and between men and women. This is usually explained by reference to institutional differences in pension systems or differences in employment histories. However, many other factors also come into play. In this paper we argue that, to avoid biased conclusions, it is necessary to take into account the role of household structure. This study of 14 European Union (EU) countries investigates the impact of household structure on gender differences in old-age poverty risk. The empirical examination is based on European Union Statistics on Income and Living Conditions (EU-SILC). The findings show that older women's high poverty risk is strongly related to the financial vulnerability of single-person households and the higher prevalence of female than male single-person households. In addition, gender differences in poverty risk can be attributed to gender differences in household structure. It matters whether the older person lives with another older person or an employed/unemployed person and whether there are minor children in the household. Country differences in the gender poverty gap are linked to country differences in the household age structure and the poverty risks of different types of households.

Keywords Poverty · Gender · Gender gap · Household · Old age · Pension

JEL Classification I32

1 Introduction

The poverty risk of older people has decreased in many EU countries in recent decades, but the problem of poverty has certainly not gone away. In fact, population ageing and the growing proportion of pensioners in the population has brought old-age poverty very much back into the spotlight. The old-age poverty risk varies

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greatly between European Union (EU) countries, and in most cases also between men and women. As a rule, older women are at greater risk than men (OECD 2012; European Commission 2018). The concentration of poverty among women in old age is well established, yet there is still a scarcity of research into gender differences in old-age poverty. This article aims to fill this gap. Our focus is on the role of household composition and age structure, which are key to understanding country differences in old-age poverty among women and men.

Poverty is most commonly measured in terms of the risk of relative income poverty; this has been the most widely used poverty indicator in the EU for quite some while (see e.g. Atkinson 2019). The relative income poverty risk rate is a household-specific indicator. It is based on household income, which is divided equally among all household members. This means that the poverty risk is the same for all household members. The poverty risk and therefore differences in female and male poverty rates are thus impacted by the income of all household members. Our focus in this article is on this standard poverty indicator: we break down the income poverty risk according to household structure and examine how the size and age structure of the household affect the gender differences in old-age poverty. If we fail to take account of household composition, we argue, we will not be able to fully understand cross-national differences in old-age income poverty and our conclusions may be biased.

Women's lower income in old age and their higher risk of poverty is typically explained by gender differences in employment history and by the institutional design of pension systems (e.g. OECD 2012; Tinios et al. 2015). Women have participated in the labour market less frequently than men, and therefore they tend to have lower pensions. Although women's labour market participation has increased over the decades, it continues to remain lower than men's (e.g. Esping-Andersen 2009). This is largely attributed to the gendered division of unpaid work and care responsibilities and to the lack of policies and services supporting women's employment and independence (e.g. Hegewisch and Gornick 2011; Ginn and McIntyre 2013). Due to caring responsibilities, women are more likely than men to have worked part-time, which has also adversely affected their career and earnings development (e.g. Fouage and Muffels 2009; Lyonette 2015). One of the main reasons for gender differences in earnings stems from industry and occupational segregation, which remains a significant contributory factor even today (Frericks et al. 2009; Betti et al. 2015; Boll et al. 2017b, a). The persistent gender wage gap means that women still have notably lower lifetime earnings than men (Boll et al. 2017a).

Most pension schemes are based on employment career and earnings and therefore tend to reproduce these income differences. As gender differences in employment and earnings cumulate over the life course, women's income in old age is significantly lower than men's. Women earn less than men, and therefore they have smaller pensions than men. (Möhring 2015, 2018.) The gender gap is particularly pronounced in countries that rely mainly on occupational and supplementary pension schemes, which often provide weak cover for typical women's jobs (Ginn and Arber 1999; Arza 2015). In countries with basic pension schemes, which typically provide flat-rate benefits unrelated to previous earnings or contribution

histories, pension income is significantly equalised, which is particularly important for women with lower lifetime earnings from employment. Other pension system components, such as targeted income-tested pension benefits and pension accrual for childcare, also have distributive elements and a similar mitigating effect. (Halvorsen and Pedersen 2019; Kuivalainen et al. 2020.) In recent years the gender pension gap has received increasing attention from the Organization for Economic Co-operation and Development (OECD 2012), the European Union (Tinios et al. 2015) and the Nordic Council of Ministers (Andersson 2023). The European Commission (2012) considers older women's higher risk of poverty one of the key current challenges for pension policies.

Previous studies on old-age poverty have given less attention to the role of household structure and its contribution to the prevalence of poverty. Household type has a direct bearing on the assessment of poverty risk since that risk is measured not on the basis of personal but household income. Living alone is well recognized as a major risk for poverty (e.g. OECD 2012), and women's higher life expectancy means that they live alone more often than men (Choi 2006; Iacovou and Skew 2011; Haiz 2015). In many countries single older women are defined as income poor more often than single older men (e.g. Hauser 1998; Choi 2006; Gornick et al. 2009; Horsmann and Hülssman 2009; European Commission 2018). However, it remains unclear to what extent living alone, or household structure more generally, contributes to explaining gender differences in at-risk-of-poverty rates and country variation in old-age poverty. This article aims to shed light on these questions by studying household composition. In so doing it addresses a topical aspect of gender differences in old age and provides a deeper understanding of women's higher risk of poverty.

Among the studies that have addressed the role of household structure, some have found that country differences in poverty risk are explained by household compositional differences in age and family structure and differences in labour market attachment (Fritzell and Ritakallio 2010). Fritzell and Ritakallio (2010) investigated the relationship between poverty risk and demographic and labour market structures in various countries based on simulation and counterfactual analyses and reported that socio-demographic structures exert a substantial influence on poverty rates and their cross-national diversity. However, most earlier studies of household composition and old-age poverty use the simple distinction between single and non-single households (see e.g. Smeeding and Sandström 2005). But non-single households are a far from homogenous group: they include pensioners who live with a partner, pensioners who live in extended families, and various others. There is thus great variation in household age structures. Intergenerational households are relatively common in Southern Europe (Iacovou and Skew 2011; Glaser et al. 2018; Verbist et al. 2020). This is attributable in part to what is called familialism by default (Saraceno and Keck 2010), that is, the lack of publicly provided or financially supported care services (Verbist et al. 2020), but also to the limited availability of rental and public housing (Allen 2006; Tai and Treas 2009) and the impact of the financial crisis (Verbist et al. 2020).

In economic terms and from the point of view of poverty risk, these varying housing arrangements can have different ramifications for women and men.

Intergenerational living seems to make economic sense mainly for younger family members. However, the empirical evidence concerning older people is scarce and the results are somewhat mixed. On the one hand, the evidence indicates that the financial benefits from living in multigenerational households are prochild and that pensions alleviate child poverty in countries where multigenerational households are prevalent (Verbist et al. 2020). On the other hand, it has been reported that the poverty rate in extended family households is lower than among single older people (Iacovou and Skew 2011) and that intergenerational living could therefore narrow the gender poverty gap. What matters most is the underlying reason for the living arrangements (Heflin and Patnaik 2022). It makes a difference whether an older person moves in with their adult children for financial reasons or whether the adult child moves in with their parent(s) because of unemployment or other financial difficulties. It also matters whether there are children in the household. Living with more earners seems to lower the risk of poverty for older people, while living with children under age 18 raises the likelihood of poverty (Tai and Treas 2009).

This article investigates the impact of household structure and household age structure on gender differences in poverty risk. The focus is on persons aged 75 and over, the age group with the highest gender difference in the at-risk-of-poverty rate (Eurostat 2020) (Fig. 1). The empirical part of the study covers the years 2015–2017. The examination comprises all EU-15 countries except Germany, which is excluded for data reasons discussed below. The country selection allows for meaningful comparisons of sufficiently similar cases that nevertheless show wide variation in poverty risk. The impact of household age structure is analysed by decomposing poverty risk according to household age structure. First, the age and sex of each individual in the sample are examined, and then the age and sex of other possible household members. Female households are those with a woman aged 75 or over, and male households are those with a man aged 75 or over. To clarify the connection between gender differences in poverty risk and household structure, female and male

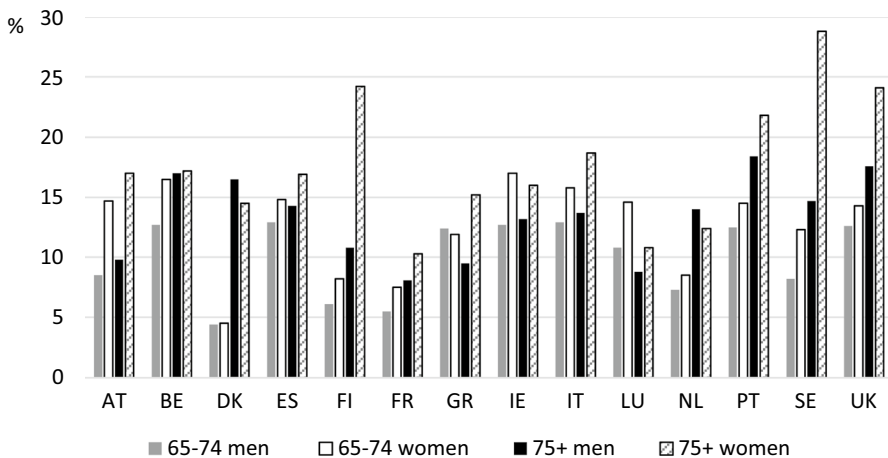


Fig. 1 At-risk-of-poverty rate by gender and age. Year 2017. Source: Eurostat (2020)

households are divided into single-person and more-than-one-person households. Further, more-than-one-person households are divided into two groups: households shared with a member of the opposite sex and the same age group (in these, the poverty risk is the same for men and women) and households without such a member.

The empirical section is based on data from European Community Statistics on Income and Living Conditions (EU-SILC), which despite their weaknesses are the best available dataset for comparative analyses of poverty in Europe.

2 Data and methods

The empirical examination is based on pooled cross-sectional EU-SILC data for 2015, 2016 and 2017 from 14 EU countries. The data are pooled to minimise random yearly variation. Because of differences in sampling designs, the cross-sectional EU-SILC data may include individuals who appear in several consecutive data sets, meaning there is a risk that there are individuals who are included more than once in the pooled data. On the other hand, the same cross-sectional datasets are used to define poverty risks in different countries, and the problem is the same for the cross-sectional datasets and the indicators derived from them. Germany is excluded because the German data do not provide breakdowns by age for people over 65. The analysis here is focused on the age group 75 or over. Persons in institutional care and old people's homes are excluded since EU-SILC only covers people living in private households. This exclusive focus on private households may give rise to country bias, however, because older people in the Nordic countries, for example, more often live in retirement homes, while other countries depend to a greater extent on informal care (see e.g. Bettio and Plantenga 2004).

The risk of poverty is assessed at household level, considering the income of all household members. This is the standard method used in income distribution analyses (see e.g. Canberra Group 2011). Income is defined as the household's equivalent disposable income using the modified OECD equivalence scale. Equivalent income is the same for each member of the household. It is important to keep this concept in mind when men's and women's incomes are examined separately in this article: the equivalent income and thus the risk of poverty for a man and woman in the same household will be the same regardless of their individual earnings. If, for example, all 75-year-olds lived with a 75-year-old (or older) partner of the opposite sex, there would be no gender poverty gap in this age group. In practice, this is not even theoretically possible because of differences in the average life expectancy of women and men: there are more women aged over 75 than men. Furthermore, it is assumed that resources are shared equally in the household, even though it has long been recognized that this does not always happen in reality (e.g. Pahl 1989; Kenney 2006) and that economic conflicts occur among older couples as well (Duvander and Kridahl 2021). The conventional poverty measure is flawed, particularly from a gender perspective, as it overestimates women's income and disregards the reality of unequal resource distribution. Studies that have measured poverty at the individual

level indicate that women experience significantly higher poverty rates (Meulders and O'Dorchai 2012; Bessell 2015; Corsi et al. 2016.)

We have chosen to define risk of poverty in terms of relative income poverty, which is the most commonly used definition in EU statistics as well as in poverty research (for a wider discussion on poverty measures, see e.g. Atkinson 2019). All individuals with an equivalent household disposable income of less than 60% of the median are considered to be at risk of poverty. The use of this standard threshold means we can make straightforward comparisons with official EU statistics and better understand the extent to which differences in household structure contribute to the prevalence of poverty risk. To assess the robustness of the results, the risk of poverty is also calculated with a 50% threshold. At this level, the risk of poverty falls clearly in all countries for both men and women. In Sweden and Finland, for example, the risk of poverty falls below 10% for women as well. At the same time, both the gender difference and the difference between household types is reduced. The gender gap in poverty risk is studied by decomposing poverty risk according to household age structure.

2.1 Decomposition

Household structure may impact upon the gender poverty gap because different household types have different poverty risks and because their shares vary in different populations. Households containing an even number of men and women of the same age group (here 75 or older) have the same poverty risk for both genders and, in this sense, do not have an impact on gender differences. There can also be household members who are under 75, but that does not change the fact that the poverty risk is the same for all household members. Thus there are no gender differences between 75+ men and women in these households.

On the other hand, the risk of poverty does differ between men and women in households that lack a partner of the opposite sex and same age. The relative significance of the poverty risk of different types of households to total poverty risk is determined by their share of all female and male households of the age group in question. Households that lack a partner of the same age group include not only single-person households but also households of men and women who live with a person of the same sex or with a person belonging to a different age group. For example, a woman aged 75 or over may live together with a woman of the same age, or with person(s) under 75. For simplicity, households that contain an uneven number of women and men aged 75+ are not included in the analysis. These households may include two women of the same age group and one man, for example. The data included only a few such households ($n=223$, or 0.25% of all households included in the analysis), and further analyses showed that they did not have a significant impact on the results.

In this study we examine the impact of household structure on gender differences in poverty risk by decomposing, that is, by breaking down the poverty risk according to household age structure. The at-risk-of-poverty rate is calculated separately for three groups:

- a) single-person households, that is, men and women who live alone;
- b) men and women who live with a partner of the opposite sex belonging the same age group 75 and over
- c) men and women who live with another person(s) who belongs to a different age group or who is of the same sex.

The total poverty risk is the sum of the weighted poverty risks of these three groups. The at-risk-of-poverty rate for men and women (pov_g) aged 75 and over can be written as follows:

$$pov_g = w(a)_g * pov(a)_g + w(b)_g * pov(b)_g + w(c)_g * pov(c)_g \quad (1)$$

where $w(a)_g$ = share of persons (men/women) who live alone. $w(b)_g$ = share of persons who live together with a partner (of the opposite sex) belonging to the same age group. $w(c)_g$ = share of persons who live together but not with a partner (of the opposite sex) belonging to the same age group and. $pov(a)_g$ = at-risk-of-poverty rate of persons who live alone. $pov(b)_g$ = at-risk-of-poverty rate of persons who live together with a partner (of the opposite sex) belonging to the same age group. $pov(c)_g$ = at-risk-of-poverty rate of persons who live together but not with a partner (of the opposite sex) belonging to the same age group.

3 Household structure and differences in poverty risk

This section examines the relationship between household structure and poverty risk among women and men aged 75 and over. Female households are defined as those with a woman aged 75 or over, while male households are defined as those with a man aged 75 or over.

3.1 Household structure

The size and age structure of older households differ by gender and country (Table 1). Because of women's longer life expectancy, it is more common for women to live alone in all 14 countries. On average, about half of women and one-quarter of men aged 75 and over live alone. Country differences are relatively large. The share of female single-person households is highest in the Nordic countries, where over 60% of women aged 75 and over live alone. The figures are lower, around 40%, in Southern European countries. However, even in these countries living alone is clearly less common among men than women. Denmark and Spain are extreme examples of the differences between the Nordic and Southern European countries. In this age group 68% of women and 40% of men live alone in Denmark, compared with 39% of women and 20% of men in Spain. These differences may be explained by the prevalence of intergenerational living, which is more common in Southern European countries. (Table 1).

While older women in many countries live alone, men typically share their household with another person, usually their female spouse. Nearly half (45%) of

Table 1 Poverty risk of men and women aged 75 and over (60% of median income) according to household size and age of partner of the opposite sex, 2015–2017

		a) Lives alone		b) Shares a household*, partner aged 75 or over		c) Shares a household, no partner aged 75 or over	
		(n = 31 505)		(n = 35 002)		(n = 24 179)	
		Share	Poverty risk (%)	Share	Poverty risk (%)	Share	Poverty risk (%)
Austria	Men	0.20	12.1	0.43	13.3	0.37	8.0
	Women	0.52	22.2	0.29	13.3	0.19	8.1
Belgium	Men	0.24	15.2	0.52	16.8	0.24	17.2
	Women	0.53	17.8	0.34	16.8	0.13	13.3
Denmark	Men	0.40	22.0	0.35	10.1	0.25	6.2
	Women	0.68	19.0	0.26	10.1	0.06	5.0
Finland	Men	0.29	27.7	0.46	6.5	0.25	5.1
	Women	0.64	34.1	0.29	6.5	0.08	6.2
France	Men	0.28	7.6	0.47	7.5	0.25	8.5
	Women	0.58	13.1	0.31	7.5	0.10	5.4
Greece	Men	0.17	17.2	0.40	6.9	0.43	10.2
	Women	0.43	22.1	0.30	6.9	0.26	17.1
Ireland	Men	0.29	28.0	0.38	8.2	0.33	8.1
	Women	0.52	25.0	0.30	8.2	0.18	9.1
Italy	Men	0.20	21.2	0.44	11.1	0.36	10.1
	Women	0.50	25.5	0.29	11.1	0.22	13.0
Luxembourg	Men	0.25	3.8	0.43	7.7	0.31	7.8
	Women	0.43	11.3	0.35	7.7	0.22	11.7
Netherlands	Men	0.26	9.7	0.47	12.3	0.27	10.2
	Women	0.59	10.2	0.35	12.3	0.06	8.9
Portugal	Men	0.15	26.4	0.50	17.4	0.35	14.3
	Women	0.41	28.0	0.31	17.4	0.28	19.1
Spain	Men	0.20	8.4	0.43	16.7	0.37	13.4
	Women	0.39	12.0	0.29	16.7	0.32	16.9
Sweden	Men	0.32	26.0	0.42	8.1	0.26	10.0
	Women	0.65	40.8	0.31	8.1	0.04	10.6
United Kingdom	Men	0.29	17.5	0.46	19.1	0.26	17.3
	Women	0.51	29.1	0.35	19.1	0.14	13.7
Total	Men	0.24	15.4	0.45	12.9	0.31	11.7
	Women	0.51	21.4	0.31	12.9	0.18	13.5

*Persons living with a partner of the same age include those male and female households that have an even number of representatives of this age group

men aged 75 and over live with a woman of the same age group, and almost one in three (31%) share their household with someone other than a female aged 75 or over (Table 1). Additional analyses show that many Southern European male households include person(s) under 50 years of age, while in the Nordic countries and in the Netherlands, France and the United Kingdom, the prevalence of this household type is low (Tables 2 and 3). Greece is an extreme example in

Table 2 Age and employment status of other members in male and female non-single 75+ households with a 75+ partner of the opposite sex (household type b in Table 1)

		Age (%)					Employed (%)
		< 18	18–49	50–64	65–74	75+	
Austria	Men	1.3	8.7	6.9	0.3	100	11.4
	Women	1.3	8.7	6.9	0.3	100	11.5
Belgium	Men	0.7	4.5	5.7	0.2	100	5.7
	Women	0.7	4.5	5.7	0.2	100	6.0
Denmark	Men	0.0	0.1	0.3	0.0	100	3.6
	Women	0.0	0.1	0.3	0.0	100	3.1
Finland	Men	0.2	2.3	3.8	0.5	100	3.6
	Women	0.2	2.3	3.8	0.5	100	3.7
France	Men	0.5	1.6	2.9	0.0	100	2.2
	Women	0.5	1.6	2.9	0.0	100	2.4
Greece	Men	2.3	14.3	8.6	0.3	100	12.2
	Women	2.3	14.3	8.6	0.3	100	12.3
Ireland	Men	0.2	3.7	4.8	0.0	100	4.9
	Women	0.2	3.7	4.8	0.0	100	6.5
Italy	Men	1.7	11.2	8.4	0.8	100	10.8
	Women	1.7	11.2	8.4	0.8	100	11.4
Luxembourg	Men	2.3	7.3	5.0	0.8	100	6.8
	Women	2.3	7.3	5.0	0.8	100	6.6
Netherlands	Men	0.0	1.2	0.6	0.0	100	2.0
	Women	0.0	1.2	0.6	0.0	100	3.4
Portugal	Men	2.5	12.0	7.7	1.1	100	11.8
	Women	2.5	12.0	7.7	1.1	100	12.7
Spain	Men	3.0	17.9	10.6	1.7	100	17.1
	Women	3.0	17.9	10.6	1.7	100	17.2
Sweden	Men	0.0	0.8	0.4	0.0	100	0.4
	Women	0.0	0.8	0.4	0.0	100	0.4
United Kingdom	Men	0.6	3.4	2.3	0.5	100	6.3
	Women	0.6	3.4	2.3	0.5	100	8.1

How to read the table: For example, Austria: in 1.3% of female households aged 75+ (with a man aged 75+) there is also a member under the age of 18 in the household, in 8.7% a member aged 18–49, etc. (and of course in 100% of these households there is a 75+ old member). In 11.5% of these households, at least one other member is employed

this sense. 43% of Greek households with men aged 75 and over are multi-person households without a woman aged 75 or over. Almost one in three of these households have a member aged 18–49. In Denmark, on the other hand, there are very few such male households: 25% of male 75+ households are multi-person households without a woman aged 75 or over, and less than three percent of these have a member aged 18–49. (Tables 1 and 3.)

Table 3 Age and employment status of other members in male and female non-single 75+ households without a 75+ partner of the opposite sex (household type c in Table 1)

		Age (%)					Employed (%)
		< 18	18–49	50–64	65–74	75+	
Austria	Men	6.6	19.7	17.7	77.9	0.5	21.4
	Women	17.4	47.2	53.4	26.0	0.4	68.8
Belgium	Men	3.8	18.3	15.3	78.1	0.0	19.6
	Women	9.5	42.8	48.5	29.3	0.0	43.8
Denmark	Men	0.0	2.7	8.7	89.9	0.0	10.5
	Women	6.0	14.3	17.6	65.3	2.1	21.8
Finland	Men	0.5	8.3	10.9	84.7	1.2	10.6
	Women	1.9	15.4	42.4	48.0	1.6	31.7
France	Men	1.6	8.3	13.7	84.6	0.9	11.1
	Women	2.2	28.1	47.4	33.6	1.9	39.6
Greece	Men	5.0	31.9	18.0	78.3	0.5	24.5
	Women	17.9	60.8	57.4	16.4	3.5	55.9
Ireland	Men	3.3	23.0	15.5	68.4	2.9	22.9
	Women	10.0	39.0	42.6	22.0	9.1	41.6
Italy	Men	4.8	28.7	14.5	79.2	2.2	24.6
	Women	9.6	44.6	54.3	15.8	5.6	54.4
Luxembourg	Men	2.4	24.0	22.7	73.6	0.7	28.1
	Women	6.6	42.9	47.4	43.2	0.7	46.6
Netherlands	Men	0.5	4.4	10.4	85.5	2.6	9.0
	Women	9.2	15.9	30.7	56.9	6.0	30.7
Portugal	Men	7.7	30.4	19.8	73.0	0.1	27.8
	Women	17.3	52.9	53.9	19.8	6.6	55.1
Spain	Men	7.4	37.3	23.6	66.9	3.0	34.1
	Women	11.9	52.4	54.0	13.6	6.5	53.1
Sweden	Men	1.6	5.1	7.1	89.9	0.0	8.5
	Women	5.1	15.4	24.1	68.4	0.0	27.5
United Kingdom	Men	2.6	12.5	16.5	79.9	0.9	23.8
	Women	11.6	34.5	48.5	31.2	3.7	53.4

How to read the table: For example, Austria: in 17.4% of non-single female households aged 75+(without a man aged 75+) there is also a member under the age of 18 in the household, in 47.2% a member aged 18–49, etc. In 68.8% of these households, at least one other member is employed

There are large country differences in the share of female non-single households. In most countries, older non-single women typically live with a male aged 75 or over. This is especially the case in the Nordic countries and in the Netherlands. In Southern European countries, on the other hand, older women often share their household with a younger member or younger members. It is fairly usual in these countries for households to include a person of working age and a working member (Tables 2 and 3). In addition, it is not uncommon to have child(ren) under the age of 18 in a household. Sweden and Spain are prime examples. In Sweden, 65% of

women live alone. The vast majority, 31% of those who do not live alone, live with a man of the same age. These households very rarely include members of other age groups. Only four percent of Swedish women aged 75 and over share a household with someone other than a man of the same age. In these households the other member is usually slightly younger, aged 65–74. In 15% of these households there is a person aged 18–49 and in five percent a minor, i.e. someone under age 18.

In Spain, on the other hand, the proportion of women aged 75 and over who live alone is much lower (39%). Just under half of the other women share a household with a man in the same age group (29% of all households). These households may also include younger members. Most commonly, just under a fifth of these households also have a member aged 18–49. Almost a third of Spanish women aged 75 and over live with someone other than a man of the same age. The most common household members are those aged 50–64 (54%) and/or 18–49 (52%), with just over a tenth of these households having a minor member.

These differences in household structure are in line with the earlier finding that intergenerational living, that is, adult children living with their parents, is more prevalent in Southern than Northern and Central European countries (Isengard and Szydlik 2012). This also reflects the ways in which the care of older people is organised in different countries. The Nordic countries provide comprehensive public care services for older people, whereas Southern European countries tend to rely more on informal care (see e.g. Bettio and Plantenga 2004). It should be noted that people living in retirement homes are not included in the EU-SILC data or in the poverty risk calculations. These people are excluded from these analyses and therefore we lack information on some older people particularly in the Nordic countries.

3.2 Poverty risk variation

As can be noted from Table 1, the poverty risk of older people varies greatly by household type, and household type is associated with poverty risk in different ways in different countries. Overall, the poverty risk is highest for single-person households, where the average poverty risk is 21.4% for women and 15.4% for men. Women living alone tend to face a slightly higher poverty risk than men, or the poverty risks are quite similar. There are a few countries where the differences are greater. Differences of ten percentage points or more are found in Sweden (40.8% for women and 26% for men), the United Kingdom (29.1% for women and 17.5% for men) and Austria (22.1% for women and 12.1% for men). Like Sweden, Finland has a very high poverty risk rate for single women (34.1%). In both Sweden and Finland, the poverty risk for single women is more than four times higher than for non-single female households. In the Netherlands, Luxembourg and Spain, on the other hand, single elderly female households fare better, with a poverty risk either equal to or lower than that seen for women living with someone. Similarly, in many countries male single households have a higher risk of poverty than non-single households, although the difference is not as significant as that between female single and non-single households. The widest gap between single and non-single men is found in

Finland, Ireland, Sweden and Denmark, where the poverty risk for single men is quite high. It is highest in Finland and Ireland, where it is close to 28%.

As our poverty measure is based on household income and assumes an equal sharing of household resources, it is obvious that we will find no gender differences in at-risk-of-poverty rates between households where the partners belong to the same age group. On average, the poverty risk for these households ranges from 6.5% in Finland to 19.1% in the United Kingdom. Gender differences are also small in non-single households that are shared with someone other than a partner aged 75 or over. The poverty risks for these non-single households are predominantly highest in Southern European countries, where especially female-headed older households have a relatively high poverty risk (e.g. Greece, Spain and Portugal).

The impact of other household members on older people's poverty risk remains partly unclear. Women's households include working-age member(s) more often than men's, and the same goes to some extent for minor members as well, especially in Southern European and also in Central European countries (Tables 2 and 3). The share of employed persons in non-single female households is highest in Austria (Table 3). Almost 70% of Austrian non-single households where older women share the household with someone other than a partner aged 75 or over, have employed members. The risk of poverty for this type of household is therefore low in Austria (8.1%). It can be presumed then that this household structure improves the financial situation of older women to some extent, despite the presence of minors in some households. A similar, albeit smaller effect can be seen in the UK and some South European countries (Italy, Portugal) where about half of these female households have a working member. However, that effect is by no means clear. Multigenerational living may also adversely affect pensioners' livelihood, depending on how much money other members bring to the household. In Spain, for example, the risk of poverty is higher (16.9%) in this kind of female household than it is among those living alone (12.0%). The economic well-being of multigenerational households is likely to depend on whether they include minor children, employed or unemployed persons or persons who for other reasons are outside the labour force.

3.3 Decomposed total poverty risk

Figure 2 displays the total poverty risk for men and women aged 75 and over decomposed into shares of poverty risks according to household size and age structure. Figure 2 is based on Table 1, and it shows the poverty risks of male and female households divided into three parts, as shown in Table 1. According to the decomposition, the age structure of the household affects the poverty risk of older people and the gender gap in the poverty rate in two ways: through the poverty risk of different types of households and through the proportion of such households.

Women who live alone are the largest group of female households with incomes below the at-risk-of-poverty threshold (Fig. 2). This is largely explained by the prevalence of living alone and the fact that the risk of poverty for single females is higher than for non-single females. This is most evident in Finland and Sweden where as many as nine out of ten women facing the risk of poverty are single

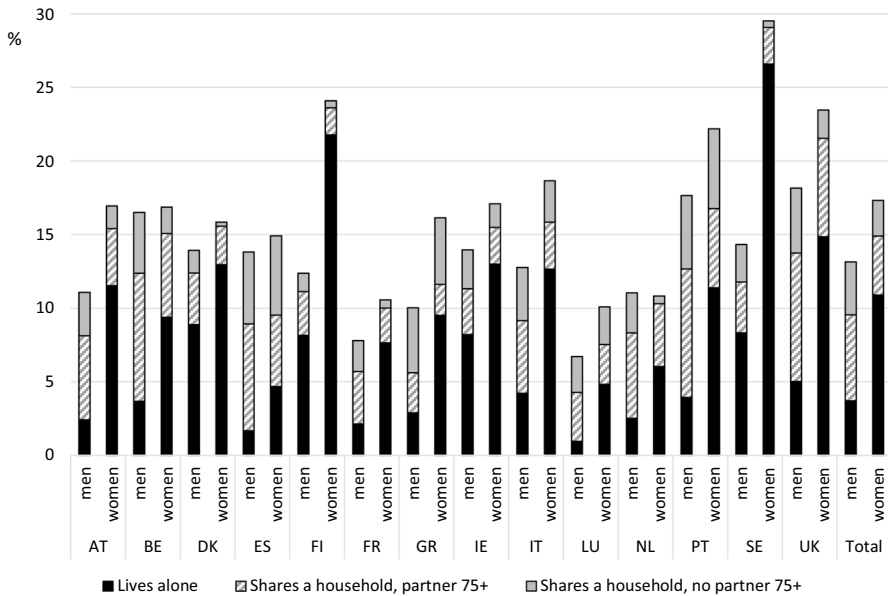


Fig. 2 Total poverty risk of men and women aged 75 and over decomposed into shares of poverty risks according to household size and age. Years 2015–2017

(Fig. 2). Because men live alone less often than women, and because the poverty risk for men living alone is not as high as the risk for women, male poverty is not as strongly associated with living alone. In many countries the majority of male households facing the risk of poverty are in fact households where a man lives with a woman aged 75 or over. In Finland, Denmark, Ireland and Sweden, however, single men are the largest group among those facing a poverty risk. In these four countries, the risk of poverty for men living alone is clearly higher than for non-singles, and the share of single male households is also quite high. In Denmark, for example, as many as 40% of men aged 75 and over live alone and their poverty risk is over 20%. It is also noteworthy that in Southern European countries (Portugal, Italy, Greece), the risk of poverty for single men is quite high, but the low proportion of men living alone means that these households do not figure prominently in male poverty. In Portugal, for instance, the poverty risk for single male households is 26.4%, but the share of single male households is only 15%.

Taken together, our analyses show that household structure and the risk of old-age poverty differ considerably across the countries in our comparison. In all countries, the most significant gender difference is found for older people who live alone. Living alone is a major contributory factor to the gender poverty gap particularly in Sweden and Finland. In these two countries the gender poverty gap among persons aged 75 and over is a result of the high poverty rate of single-person households and the much higher share of women than men who live alone in later life. This result is analogous with two other studies that single out living alone as the key explanation for old-age poverty (Smeeding and Sandström 2005; Brady and Kall 2008).

Apart from living alone, it seems that the prevalence of non-single households and household age structure have some impact on gender differences in poverty risk. As men live in non-single households more often than women and as the poverty risk in these households is usually lower than or equal to the risk in single households, the risk of poverty for men is lower than the rate for women in many countries. The impact of multigenerational living on the gender poverty gap remains partly unclear. There are indications that the presence of an employed member in the household might improve the economic situation of older women and thus even reduce the gender gap to some extent if there is a high proportion of such female households in the country. On the other hand, multigenerational living may also have adverse financial effects for women and widen the gender gap if the household includes children and consists mainly of unemployed persons.

4 Conclusions

In this article we have investigated differences in the poverty risk of older men and women in 14 EU countries to find out why women are at considerably greater risk than men in some but not other countries. Factors traditionally associated with older women's low income, such as low lifetime earnings and pension system design, do not exhaustively explain gender differences in the old-age poverty risk, and therefore we turned our attention to household structure.

We found that the gender gap in poverty risk is strongly linked to gender differences in living alone and the poverty risk of persons living alone. In many countries the poverty risk of single-person households is higher than that of non-single households. Because older women live alone more often than older men, it is reasonable to expect gender differences in poverty risk. These differences are increased by the fact that, in some countries, single older women have a clearly higher poverty risk than single older men. Gender differences in the prevalence of single-person households together with the high poverty risk of those living alone largely explain why Sweden and Finland have such a large gender gap compared to Southern European countries. While women in Northern Europe most typically live in single-person households, this is far less common among women in Southern Europe.

Furthermore, because of the gender difference in the prevalence of non-single living, the proportion and age structure of non-single households also have an impact on gender differences in poverty risk. Older men typically live with a spouse who is the same age or slightly younger, while older women usually live with a spouse of the same age group. Also, in Southern and Central European countries older women often live in multigenerational households. Our analyses suggest that the presence of an employed member in the household might improve the economic situation of older women and thus even reduce gender differences if there is a high proportion of female households with an employed member. Otherwise, the impact of multigenerational living on gender differences remains unclear. Multigenerational living may adversely affect the financial situation of women and thus widen the gender gap if there are minor children and unemployed persons in the household.

More research is needed to understand the impact of multigenerational living on the economic well-being of older people. It would be particularly useful to examine countries with a high prevalence of multigenerational living. In a European context this means including East European countries.

It is also important to note that even if pensioners do not necessarily benefit financially from living in multigenerational households, there may be other benefits, such as an increased sense of security and practical help. Living in a community with non-relatives might have similar benefits. One important indirect benefit is not having to purchase certain services. This opens interesting questions for further research. More research is also needed on single households to understand the potential differences in poverty risk between divorced, never married and widowed persons and the gender differences that occur within these groups.

Likewise, further research is required on changing household structures and living arrangements and their impact on poverty risk. It is expected that in the decades ahead, given current trends in health and marital status, older people in Europe will be less likely to live alone or with people other than a partner, or in institutions. (Kalogirou and Murphy 2006; Gaumy et al. 2008) According to our results, these trends will likely have implications for the poverty risk of older people, especially older women, and therefore should be carefully monitored and studied.

Our analyses indicate that if poverty comparisons are based on indicators of income distribution alone or 'raw' poverty rates, the picture emerging of gender differences in the poverty rate in different countries might be rather one-sided. It is important that we also consider the role of household structure. An examination of poverty risks that takes account of household structure helps to make sense of gender differences that at first sight may seem unexpected and even counterintuitive.

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Declarations

Conflict of interest The authors declare that they have no conflict of interests.

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