Juggling health: The effects of being a sandwich carer across different care regimes in Europe

Introduction

Demographic changes related to increasing life expectancies and lower fertility rates have consequences on population structures related to rising shares of older adults (Christensen et al., 2009). In recent years, these transformations have drawn public attention to the expected growing care needs of ageing populations (Breyer et al., 2010; Grundy & Murphy, 2017; Rechel et al., 2009, 2013). Previous studies have highlighted that social care demands are usually absorbed by informal carers who are kinship-related to those needing support (Bom & Stöckel, 2021; Krakowiak, 2020; Spijker et al., 2022; Tennstedt et al., 1993; Wittenberg & Hu, 2015). Moreover, this care provision for older persons might be taken on by families with other caring responsibilities, like underage individuals. Within the literature, those who simultaneously care for their children and other older adults are known as "sandwich carers" or "carers from the sandwich generation", as they oversee caring for the younger and older people (Alburez-Gutierrez et al., 2021; Gervais & Millear, 2024). Previous research has analysed the proportions and population projections of different countries with individuals who will become sandwich carers, warning about the potential effects that this dual responsibility (or burden) may have on them (Cheng & Santos-Lozada, 2024; Do et al., 2014). We also know that the negative impact of caring differs greatly by country, and it is related to the public provision of care services (Verbakel, 2014). However, there is limited research providing cross-national comparisons on the consequences that being a sandwich carer may have on their physical and mental health, and how these can be explained by the support of public and social care provision policies. To contribute to the evidence on the subject, this study compares across different European countries the effects that being a sandwich carer has on their well-being, and how these are explained by structural factors related to diverse configurations of social care regimes, and individual factors referring to the specific sociodemographic characteristics of these informal carers.

Increasing social care demands have called attention to the effects that care provision might have on individuals' lives (Albertini et al., 2022). There is an important body of evidence referring to the negative consequences that supporting others has on their well-being, especially when it comes to their physical and mental health (Bom et al., 2018). Despite this widespread idea about the adverse effects that care provision has, previous studies have also shown that caring for others is associated with lower mortality and better health (Roth et al., 2015). However, these studies are usually focused on care provided to older adults facing some kind of chronic condition, disability or limitation. On the other hand, research about the effects of parenting on carers' health has emphasised its negative consequences on mental health (Nomaguchi & Milkie, 2020), while its consequences on physical health are scarcely assessed. Evidence on the impact of sandwich caring remains mixed, as some authors have found negative effects of sandwich caring on mental and physical health, especially for those in charge of providing intensive care (Xue et al., 2025), while others have not observed that individuals from sandwich generations necessarily experience negative results in their mental health (Cheng & Santos-Lozada, 2024).

Moreover, research on the mental and physical effects attached to informal care provision has shown that these vary due to care providers' individual characteristics, like their gender, age, socio-economic level, participation in the labour market, as well as their own health and well-being before becoming a caregiver (Bom & Stöckel, 2021; Lacey et al., 2024; Schaps et al., 2025; Zueras & Grundy, 2024). Furthermore, it is likely that structural factors also play a role in explaining these health effects, because of social norms and cultural values related to care provision as well as to the scenarios in which care provision occurs, which refer to countries' specific care arrangements, and the availability of different resources like economic transfers or material support through publicly funded services for providing care. In this sense, Social Care Regimes are the crystallisation of the values and means that define social care provision within countries;

therefore, they act as macro-level factors that can influence or modulate the effects of sandwich caregiving on physical and mental health. Despite their regional proximity and a common history, European countries have different configurations of these care regimes, which are a result of the specific development of their welfare states (Pfau-Effinger, 2005). In general, social care regimes tend to range between familialism, where most care is provided by family members, and defamilialisation, where policies aim —through various mechanisms— to ensure that families are not solely responsible for the caregiving burden (Calderón-Jaramillo & Zueras, 2023). A recent empirical analysis of the 26 OECD European countries identified three types of care regimes based on how families and states participate in the provision of care for older individuals: 1) Strong defamilialization / Supported familialism; 2) Moderate defamilialization / Supported familialism; and 3) Default familialism (van Damme et al., 2025). In this study, we use this typology as a contextual explanation of the differential effects that being a Sandwich carer might have on individuals' well-being, as it considers both sides of the care burden.

Methodological approach

Given the relevance of the social care regimes in understanding the mental and physical health effects deriving from being sandwich carers, this study uses multilevel analysis aimed at understanding the cross-country differences in outcomes between diverse informal carers, depending on who is receiving the care, and the types of social care regimes. Following previous definitions, "sandwich carers" are identified in this study as those who are responsible for caring for an adult with health problems and who also live with underage children (< 13 years old) in their household. To compare differences in physical and mental health outcomes across different social care regimes, data from the third wave (2020) of the European Health Interview Survey (EHIS) is used. The EHIS contains harmonised information for all European member countries and includes relevant questions on individuals' health conditions and use of health services. This survey covers 27 European Union countries (excluding France, Cyprus, and Malta). The total sample for 2020 consists of 158,369 individuals between the ages of 25 and 59. However, in this study, we included the 22 countries with data for the third wave and excluded Hungary and Ireland due to the number of missing values in the variables used to categorise carers. In total, 246,182 individuals are included in our analytical sample, and the analysed countries were categorised as one of the three above-mentioned types of care regimes.

The methodological approach is composed of two main processes. Firstly, we are differentiating four groups regarding their care burden: i) "Sandwich" caregivers (reference group), ii) individuals not providing care for older adults and not living with underage children, iii) individuals not caring for older adults but living with underage children, and iv) individuals caring for older adults but not living with underage children. Physical health is assessed through the variable of self-perceived health (good, fair or bad). Meanwhile, mental health was measured through a scale ranging from very good to very poor (score from 1 to 25) as included in the EHIS, which was categorised into experiencing none, mild, moderate or severe depressive symptoms. Secondly, multinomial multilevel models are going to be fitted by including countries as levels. These models control for individual and structural variables; the included individual factors are sociodemographic characteristics referring to sex, age, educational level, household composition, number of people living in the household, household income, place of birth of the respondent and number of hours providing care. Meanwhile, the structural variable refers to the typology of care regimes based on five indicators to measure state support to families providing care, which refer to long-term care services availability, care leave, care allowance, caregiver support index and long-term care expenditure (van Damme et al., 2025).

Preliminary Results and Discussion

The analytical sample composition is presented in Table 1. It is visible that more than half of men and women are in the group of not providing any care, even though these percentages tend to be higher for men than for women (66.88% vs 61.61% for the whole sample). Meanwhile, higher shares of women than men are

observed in the other groups that imply providing care. Those caring for underage represent about one-fifth of the sample (18.75% for men and 19.66% for men), and more than one-tenth of the sample are those without children but providing care to older adults (12.07% for men and 15.33% for women). Finally, sandwich carers represent the lowest percentages of the sample (2.30% of men and 3.40%). Results of the physical and mental health are presented in Figures 1 and 2, by sex, type of carer and social care regime. Regarding physical health, it is visible that individuals not receiving care from countries with Default Familialism have higher percentages of bad self-rated health, when compared to their counterparts from other social care regimes. This is probably explained by the healthy carer hypothesis (Fredman et al., 2015), because in many cases, having good health is needed to provide care. Furthermore, those providing care to underage children have better self-rated health than those providing care to older adults, whether they are sandwich carers or do not have underage children. Moreover, when it comes to mental health, it is visible that individuals from countries with Default Familialism have better mental health when compared to those in countries with Strong defamilialization / Supported familialism and Moderate defamilialization / Supported familialism. This is particularly visible when we analyse individuals caring for children, older adults, and sandwich carers, which might be indicative of the positive effects that providing support might have on mental health (Cheng & Santos-Lozada, 2024). Regression models, including the analysed countries as levels, are expected to check if these results hold and how differences between and within countries are explained by the individual and structural factors that we are controlling for. Our study aims to contribute to the discussion of the health consequences of care provision by family members and provide more considerations about the role that social policies have in supporting the well-being of Sandwich carers.

Table 1. Analytical sample composition

	Men					Women				
	Not providing care	With underaged children, not providing care to older adults	No underaged children, but providing care to older adults	Sandwich carers	Total	Not providing care	With underaged children, not providing care to older adults	No underaged children, but providing care to older adults	Sandwich carers	Total
n Sample	**75100**	**21052**	**13555**	**2447**	**112154**	**82720**	**26397**	**20584**	**4327**	**134028**
% Sample	**66.88**	**18.75**	**12.07**	**2.30**		**61.61**	**19.66**	**15.33**	**3.40**	
Austria	69.60	17.10	11.31	1.98	7080	61.58	18.94	15.94	3.54	8173
Belgium	66.19	22.54	9.76	1.51	4161	60.32	23.82	12.88	2.98	4597
Czech Republic	71.49	17.89	8.89	1.73	3420	68.09	18.42	11.29	2.20	4463
Denmark	56.94	13.64	24.91	4.51	2617	49.71	17.15	27.50	5.64	3458
Estonia	66.07	20.27	11.48	2.19	2013	65.17	20.09	11.77	2.96	2837
Finland	63.36	16.01	18.35	2.29	1924	59.66	16.42	21.31	2.61	2717
Germany	65.94	12.71	19.00	2.35	10606	61.52	12.11	23.05	3.32	11913
Greece	74.51	14.17	9.36	1.95	3684	70.75	15.17	12.10	1.98	4140
Iceland	53.52	21.59	18.67	6.22	1816	47.06	21.41	23.24	8.29	2027
Italy	67.82	17.18	12.89	2.10	18140	62.34	17.52	17.05	3.09	20821
Latvia	37.73	49.08	5.53	7.66	1031	33.33	51.34	6.07	9.26	1533
Lithuania	72.62	16.04	9.36	1.97	1976	67.45	16.29	13.81	2.45	2860
Luxembourg	62.09	23.55	12.33	2.02	1881	56.95	26.78	12.61	3.67	2181
Netherlands	66.33	20.04	11.48	2.15	4006	60.09	19.99	16.31	3.61	4187
Norway	64.66	18.62	13.51	3.21	3959	61.01	21.56	13.59	3.84	3929
Poland	66.36	21.46	9.98	2.20	6915	60.48	22.86	12.84	3.82	9899
Portugal	76.30	15.33	7.12	1.25	6262	71.41	15.38	11.13	2.08	8251
Slovakia	73.33	15.67	9.09	1.90	2310	67.20	16.64	12.81	3.36	3216
Slovenia	65.80	21.33	10.15	2.72	4345	61.53	21.60	13.58	3.30	5274
Spain	73.09	18.46	7.11	1.34	10071	68.46	19.04	10.55	1.94	11218
Sweden	67.01	23.02	8.11	1.86	4844	65.69	21.49	10.48	2.34	4751
United Kingdom	66.18	13.61	17.94	2.27	7833	58.34	16.73	20.81	4.11	9964

Figure 1

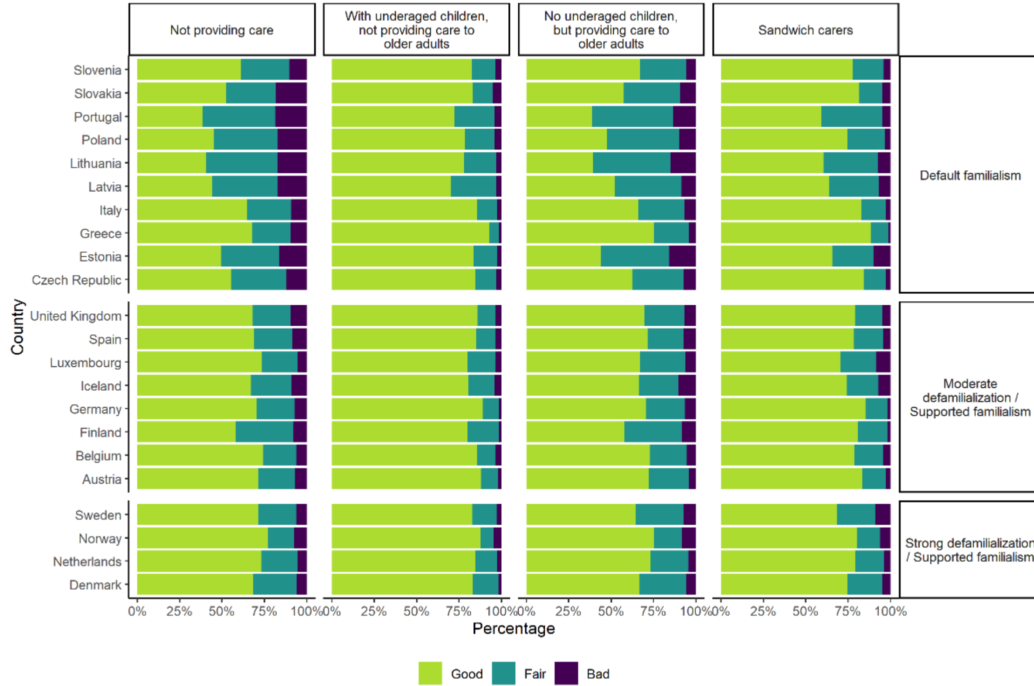
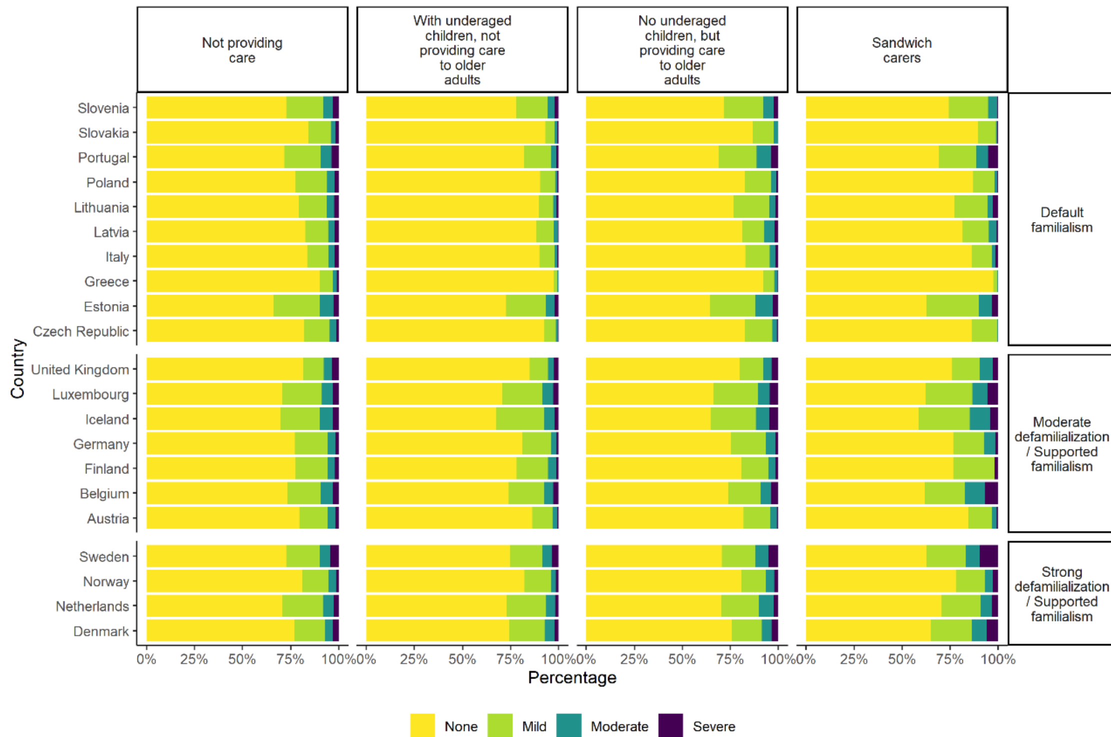


Figure 1



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