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ARTICLE

How do social meetings impact health in different welfare regimes? A comparative study of 35 European countries

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Abstract
Self-rated health (SRH) is widely used as an indicator of health in population studies, and there has been an increased interest in cross-national variations. Numerous studies have found an association between SRH and health, including whether there are interactional effects at both the micro and the macro levels. This article compares the effect of social meetings on SRH across different welfare regimes in Europe. We discuss whether differences in welfare design may explain some of the variations in the impact of social meetings on SRH. We observe regime-specific patterns and identify cross-national variations. One main finding is that the effect of social meetings on SRH is stronger in all other welfare regimes compared to the social-democratic regime. Examining the pattern of association between SRH and social meetings across welfare regimes offers valuable insight into whether welfare systems may moderate potential health risks stemming from fewer social meetings.

Keywords: self-rated health; social meetings; welfare regimes; social determinants of health; health inequalities

Introduction

The welfare state plays an important role in shaping health outcomes, and research on the social determinants of health increasingly employs welfare regime theory to compare and observe health variations across countries. A common assumption is that population health differs across welfare regimes and the provision of public health services. It is well established that there is a link between social inequalities and health outcomes, and according to Beckfield et al. (2013), the degree of social inequality within health varies across different societies worldwide. There are also notable differences within Europe, and several studies have found that differences between countries in health inequalities can be related to variations in the provision of welfare (e.g., Bambra and Beckfield, 2012; Bergqvist et al., 2013). These studies find that the welfare state has an important role in moderating the effects of the social determinants on health. A comparison between welfare regimes on the interactional effects of SRH is relevant on its own right. However, these studies do not necessarily take into account that social meetings may have a varying impact across different regime types, as countries differ in how welfare is organised, in addition to cultural variations. Southern European countries have, for example, traditionally been more oriented towards family values, such as the duty to take care of the elderly and making sacrifices for the family. In contrast to this idea of "familism" stands the concept of individualism, which defends the independence of family members, tolerance of new family models, cohabitation instead of marriage, which implies less frequency of interaction among relatives and more governmental intervention towards children and elderly care (Ayuso-Sanchez and De-Miguel-Luken, 2016). In recent decades,

research on health inequality has increasingly focused on factors such as material living conditions and behavioural factors. Income, social class, and other indicators of material living conditions are generally considered important determinants of SRH. The persistence of large health inequalities emphasizes that these inequalities are deeply rooted in the social stratification system of modern societies (Kunst et al., 2005). SRH has become one of the most widely used variables in this research and has been a reliable predictor of death and illness. This research shows the relation between socioeconomic status and health among adults – generally showing poorer health among those with a lower socioeconomic status (Marmot, 2005). The significance of systemic and material conditions on health is well established, which implies that the organisation of welfare, such as the degree of equal distribution of health in a population, has a significant impact on SRH. However, the above-mentioned studies do not differentiate welfare regime effects from other macro effects that might influence the effect social meetings have on SRH. In order to identify overlooked factors, we therefore observe whether different regime types play a moderating role when measuring the effects of social meetings on SRH. While we expect that both social meetings and characteristics of the welfare regime affect SRH, we argue that regime type also moderates the effect of social meetings on SRH. Accordingly, the welfare regime is the moderating variable, while social meetings are the moderated variable. Following this logic, we explore whether the effect of social meetings on SRH is dependent on welfare provision and how welfare is organised within a society. For theoretical reasons, we have empirically grouped the countries in our study into categories based on how the country's welfare is organised. Our empirical analysis builds on Esping-Andersen's (1990) regime classification theory, including additions to his model, alongside research on SRH. Our aim is to identify whether a generous welfare regime, with strong social and health services, can moderate the potential harmful effects that fewer social meetings may have on health. We selected the time span from 2002 to 2019 to capture trends over time. The contribution of this study is twofold. First, it contributes to the theoretical debate on welfare regimes by shedding light on factors which may moderate the effect welfare regimes have on SRH. Second, the study contributes to overcome the limitations of singular country studies on social meetings and SRH.

Self-rated health and social meetings

Self-rated health (SRH) (also referred to as "self-assessed health" or "self-perceived health" refers to a single-item health measure in which individuals rate the status of their own health on a four- or five-point scale, from *excellent* to *poor*. It is popular for its simplicity and has been extensively studied in Western populations. A series of national and international analyses has consistently shown that SRH is a good predictor of mortality resulting from various diseases (Benjamins et al., 2004). Despite the apparent non-specific nature of SRH, it has been shown to be an unusually strong predictor of mortality. SRH is the most widely used comprehensive health measurement recommended by the World Health Organisation (WHO) (DeSalvo et al., 2006).

There are several indicators that can be used when studying what factors influence SRH. Many studies have shown a strong association between health and socioeconomic determinants (Kaikkonen et al., 2009; Mackenbach, 2012). Individuals with lower socioeconomic status can expect to enjoy fewer years in good health, have higher rates of mortality, and die younger (Mackenbach, 2012). Earlier studies have also looked at the significance of variables that measure the significance of what one might define as *the social dimension* of SRH. This dimension has a weaker connection to material conditions, and can include the extent to which an individual participates in regular social activity, the degree of perceived social support, and so forth. Even if these variables capture social factors influencing SRH, they differ from the variable "social meetings", which specifically measures the frequency of social meetings.

Social meetings is a commonly used variable in research, and several studies incorporate the frequency and characters of social meetings into scales of social support, social participation, and social network. The Lubben Social Network Scale (LSNS) (Lubben, 1988) is one among the scales that has explored social meetings as an indicator. This scale has been used to measure size, closeness, and

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frequency of contacts in a respondent's social network. Into this scale there are variables that measure the same dimension as social meeting that are associated with health outcomes, such as personal network size, consistency. For example, it has been shown that larger networks have been associated with a lower risk of depression (Noteboom et al., 2016). Buckley et al. (2022) have examined the direct effect of social isolation on SRH and the potential mediating effect on the psychological sense of community. Their study shows how social isolation affects SRH among older adults in Puerto Rico two years after a major natural disaster. This provides insights into the mediating role of psychological sense of community in the association of social isolation and SRH.

Even if many studies have identified indicators of social meeting and SRH, there is a lack of research using this variable to measure the moderating role that welfare regimes play in the association between social meetings and SRH. Our natural point of departure is research on variables that measure the influence of social dimensions on SRH. We therefore build our theoretical argument on prior research that has used variables that are most similar to the ones we test. Social activity is one variable that has been commonly used in research on SRH, and even if social activity can take different forms, the frequency of social meetings can be considered one indicator of social activity. It is widely accepted that an active social lifestyle is associated with better health outcomes and increased longevity. Several studies performed in the USA and Europe since the 1970s indicated an association between social networks and mortality. Social and community ties were shown to be associated with reduced mortality (Berkman and Syme, 1979), while reduced levels of social interaction were associated with increased mortality (Morgan et al., 1991).

A consequence of fewer social meetings may also lead to increased feelings of loneliness. Several studies have shown that loneliness is associated with individual-level characteristics such as gender, age, marital status, and socioeconomic status (Gierveld, 1998; Pinquart and Sörensen, 2001). For example, older people report more loneliness than younger individuals; divorced persons are more lonely than married people, while a higher economic status is associated with less loneliness. Loneliness has also been associated with cultural factors at the societal level, with older people in more individualistic societies reporting lower levels of loneliness (Lykes and Kemmelmeier, 2014). This may seem counterintuitive, but one interpretation is that older people in the more individualistic Northern European societies may feel less lonely since these types of societies tend to have stronger welfare institutions, which could play a moderating role in reducing such feelings. When identifying the social mechanisms, we make a connection between social meetings, experiences of loneliness, and the effect it has on SRH across different welfare regimes. We build upon the model of Perlman and Peplau (1982), which states that the prevalence of loneliness comes from unmet needs from having few social contacts. Secondly, they point out that the prevalence of loneliness can be associated with poor living conditions, such as low socio-economic status, poor health, or a deprived living environment.

Even if it is possible to draw an analogy between the impacts of social meetings on loneliness and SRH, these factors are more limited to the social factors leading to SRH. However, SRH is measured by more than just the psychological or mental aspect, and one advantage of using the regime categories as a moderating variable is that it takes into consideration both the material and the social conditions. Accordingly, how the welfare regimes perform should be an indicator of how the individual is taken care of both socially, mentally, and physically. Finally, the welfare state might also influence loneliness by supporting services that enable older people to interact socially and to engage in social activities. The welfare state influences individual social expectations, quality of living conditions, and level of social integration, which are thus formed in the exchange with the welfare state context of a person (Nyqvist et al., 2019). For the purpose of our argument, the stronger welfare states may fill unmet social needs through the health and social services.

Comparison of welfare regimes

Our data is based on Esping-Andersen's (1990) differentiation of welfare states into regime categories (see Table 2 for classification of countries). Welfare regime types have been accepted as an important

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factor determining health inequalities (Craveiro, 2017). Many attempts have been made to create a classification scheme that is applicable to most welfare states. Esping-Andersen's (1990) classification elaborated in his book *The Three Worlds of Welfare Capitalism* is probably the most well-known. He categorized Western states into three main regime categories: Social democratic, Liberal, and Conservative, and shows how they differ regarding the organization of the welfare state as well as how extensive the standard of welfare services the state provides for its citizens is.

The social-democratic welfare type is characterized by a high level of universalism and equality of the highest standards. In other words, the workers were guaranteed full participation in the quality of rights by the better-off. It crowds out the market and constructs an essentially universal solidarity in favor of the welfare state. (Esping-Andersen 1990: 28). In line with these criteria, we have grouped the five Nordic countries into this category.

Liberal welfare states can be observed in most Anglo-Saxon countries like the United States and the United Kingdom. These welfare states are characterized by individuality and the primacy of markets. The liberal welfare state is based on means-tested assistance, modest universal transfers, and modest social insurance plans. (Esping-Andersen, 1990). Since we have limited our empirical study to European countries, we have grouped the UK and Ireland into this category.

The conservative-corporatist welfare regime is characterized by a moderate level of decommodification. The model is based on a historical corporatist-statist legacy in which social rights and equality were never a significant issue. (Esping-Andersen, 1990). We have added seven countries from the surveys into this category.

Esping-Andersen's model has received praise but also criticism, for example, that it does not take into account a Southern European dimension. Among others, Ferrera (1996) and Trifiletti (1999) have argued that the Southern European countries should be seen as a separate cluster, and that they represent a separate "Southern model" of social policy. Esping-Andersen's lack of specification of the Mediterranean dimension has led to a debate about the existence of a "Southern model." As such, we have included the Mediterranean category in our analysis to address this potential limitation of the original model. The Mediterranean regime is characterized by a fragmented system of welfare provision, which consists of diverse income maintenance schemes that range from the meagre to the generous, and a health care system that provides only limited and partial coverage. There is also a strong reliance on the family and charitable sector (Ferrera, 1996).

Lastly, it has been debated whether the post-communist countries of Central and Eastern Europe fit into Esping-Andersen's typology. Deacon (1993) suggested a "probably temporary" classification of most of these countries as an additional type, that of a "post-communist conservative corporatist welfare regime." According to Esping-Andersen, the Eastern post-communist countries are clearly the most under-defined and understudied region in terms of welfare state development (1999). These countries have experienced economic growth and have also undertaken social reform throughout the 1990s (Kovacs, 2002). After the collapse of Communism in 1989 a very rapid transition to a market economy was compounded by economic liberalization and the elimination of subsidies and price controls (Ferrera and Rhodes, 2000).

We have therefore included the post-communist category in our analysis, where we present data from 15 former Eastern European communist countries. There are certainly substantial variations among countries within this category. However, they all share a similar historic transition from centrally planned economies to market-based systems, which in turn has significantly impacted their welfare systems.

We have operationalized the welfare regime types by grouping countries into the five mentioned categories commonly used in comparative European research, which also includes later updates of Esping--Andersen's (1990) model: (1) the social-democratic (Denmark, Finland, Iceland, Norway, Sweden), (2) the liberal (Ireland, United Kingdom), and (3) the conservative (Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland), (4) the Mediterranean (Cyprus, Greece, Italy, Portugal, Spain, Turkey), and (5) the post-communist (Albania, Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Ukraine). We use these categories as measures of

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Esping-Andersen's ideal types. More specifically, the social-democratic, the liberal, and the conservative countries represent an operalization of Esping-Andersen's original typology, while we also build on later studies that extended his typology, including countries characterized by other distinct directions, such as the Southern or Mediterranean countries (Leibfried 1993; Ferrera 1996). The Southern/Mediterranean category, in addition to the post-communist, contributed to capture empirically distinct welfare state routes in Southern and Eastern Europe (see Deacon 1993 and Ferrera, 1996).

To sum up, our operationalization measures variations in welfare state design by grouping the countries into empirical categories that broadly reflect Esping-Andersen's (1990) ideal types. Additionally, we included later expansions of his model so that we could extend the analysis to a broader European context.

Chung and Muntaner (2007) have conducted a multilevel analysis of health indicators clustered in welfare state regime types. Their results have shown that 20% of the differences in the infant mortality rates among countries can be explained by the type of welfare state. Bambra and Eikemo (2009) found that the welfare state regime accounts for approximately half of the variation in the health status at the national level. Cross-national differences in SRH health have been discussed in relation to welfare state systems, where the Nordic welfare system (often referred to as the Scandinavian or social-democratic regime) with an extensive welfare state, is often held in high regard. Previous research also implies that the extent of welfare state regime provision plays an important indirect role in the prevalence of loneliness in later life (Nyqvist et al., 2019). Studies show that general well-being and happiness are largely due to the ability of the Nordic model to create a framework for "the good life," a safety net that creates security, free education, and a sensible balance of work and leisure time, allowing people to enjoy both their work and their family life (OECD, 2017). Finally, there might be a combination of material and cultural factors leading to health outcome. Since values associated with familism are stronger in both southern and eastern European countries compared to the Nordic European countries, it is possible that this might influence SRH in a positive direction. One assumption is that a culture with more family-oriented values may lead to less loneliness.

To sum up, access to social meetings can be driven by a combination of cultural factors, health services, and material resources. Since research has shown that social meetings have an overall positive effect on health, we expect that social meetings have a positive effect in all the welfare regimes, despite cultural variations and how extent of the services are. Our first hypothesis is postulated as follows:

H1: Social meetings have a positive effect on SRH in all of the welfare regime categories.

Nyqvist et al. (2019) found that the Nordic as well as Anglo-Saxon and Continental welfare regimes performed better than the Southern and Eastern regimes concerning the absence of loneliness. They showed that the elderly in the Nordic regime, characterized as a more socially enabling regime, are less dependent on individual resources for loneliness compared to regimes where loneliness to a greater extent is conditioned by family and other social ties. This goes against the assumption that familism in Southern and Eastern Europe leads to lower levels of loneliness. One interpretation is that, despite the fact that the Nordic countries are characterized by individualism, which could lead to more loneliness, it could also be that the social security net provided by the welfare state has a preventive effect on loneliness. Another speculation is whether the welfare services can play the equivalent role in individual societies, in the same manner as the family does in less extensive welfare states. We assume that there might be some variation in the effect social meetings have in different regime types. As such, we test both the direct effect of social meetings, in addition to examining the direct effect of being conditioned by regime type, by including cross-level interactions. We thus present the following hypothesis:

H2: In Scandinavian welfare regimes social meetings have less effect on SRH than in the other welfare regimes.

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Table 1. Descriptive statistics

Variable	N	Mean	Std. dev.	Min.	Max.
Self-rated health	390,205	3.755	0.928	1	5
Woman	390,205	0.538	0.499	0	1
Age	390,205	48.191	18.533	13	123
Education years	390,205	12.296	4.076	0	56
Partner	390,205	0.557	0.497	0	1
Child	390,205	0.759	0.41	0	1
Social meetings	390,205	4.839	1.605	1	7
Level 2					
Health expenditure	212	2.939	1.667	0.374	9.871
GDP per capita	212	35.932	22.093	2.659	99.778
Level 3					
Social-democratic	35	0.143	0.355	0	1
Liberal	35	0.057	0.236	0	1
Conservative	35	0.2	0.406	0	1
Mediterranean	35	0.171	0.382	0	1
Post-communist	35	0.429	0.502	0	1

Data and methods

We ran two-level hierarchical models using individual-level data taken from nine rounds of the European Social Survey (ESS, 2020), covering the period 2002–2019.[1] Our analysis includes 35 countries which gives us 212 country-survey-years (level-2), and approximately 3,90,000 respondents (level-1). The ESS is a biennial repeated cross-sectional study based on personal interviews.

Individual-level variables

All our variables are presented in Table 1. Our dependent variable is a five-point ordinal scale measuring self-rated health, measured using the question: "How is your health in general?" with the response categories being "very bad" (1.55%), "bad" (7.28%), "fair" (27.18%), "good" (42.10%), and "very good" (21.90%). High values mean that the respondent reports good health, and we argue that this variable captures physical health as well as the mental and social aspects of the health dimension.

Our main independent variable, social meetings (1–7) is operationalized through the following question: "How often do you socially meet with friends, relatives or colleagues?" with the answer categories (with percentage of our sample) being "never" (2.13%), "less than once a month" (8.86%), "once a month" (9.62%), "several times a month" (19.43%), "once a week" (17.68%), "several times a week" (26.89%) and "every day" (15.38%).

[1]Most of the data applied in the analysis of this publication is based on the ESS. The data is provided by the ESS, and prepared and made available by NSD – Norwegian Centre for Research Data. Neither ESS nor NSD is responsible for the analyses/interpretation of the data presented here.

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One of the strengths of our analysis is the large *N* at both levels. As such, we have been cautious when it comes to including control variables, including only those with few missing values. At the individual-level we have included *woman* (0–1), *age*, *education years*, and *partner* (0–1), the latter denoting whether the responded is married/cohabitant, as well as *child* (0–1) denoting whether the respondent have a child or children (of any given age) as older children can function as a support network and younger children can create social contact to other adults.

Higher-level variables

We included two controls at the country-survey-year level: *health expenditure per capita* and *GDP per capita*, both gathered from the World Bank (2022), and divided by 1,000 for easier interpretation. Our expectation is that both these control variables should have a positive effect on individual SRH. It follows the same strain of logic as to why having higher education or belonging to a privileged social class would be associated with better health. At the country-level, this standard of living can be measured by GDP per capita (Eikemo et al., 2008). Olsen and Dahl (2007) point out that some of the differences in health between the Mediterranean countries and the former communist countries on the one hand, and the liberal, conservative, and social-democratic regimes on the other hand, are due to the relative poverty of the former countries. *Health expenditure* follows somewhat the same logic. If a country is able to provide good health care for its citizens, we expect this to be positively associated with *self-rated health* at the individual level. This expectation is supported by a review of the literature on public health spending and population health, where the author finds that increases in spending on public health is associated with a similar improvement in population health (Singh, 2014).

Several studies also show that there is a relationship between SRH and government spending (see, for instance, Mueller et al., 2019), as well as the economic situation and SRH (see for instance Leão et al., 2018; Copeland et al., 2015). Our main independent variable is regime type and is measured at the country level. This is operationalized as a set of dummies where we have chosen to set the Social Democratic type as the reference group. We thus include dummies (0–1) for the liberal, conservative, Mediterranean, and post-communist countries. For a list of the regime categories, see Table 2. For our main hypothesis, this dummy set is multiplied by level-1 variable, *social meetings.* For the results of the individual-level variables, we employ sampling theory, thus generalizing from the sample to the population. Regarding the upper-level variables, our aim is to investigate the full population of European countries. As such, we are here generalizing within stochastic model theory, from the observation made to the process that brings about the data (Gold, 1969; Henkel, 1976). In our models, the standard errors of the variables are calculated based on the *N* for the corresponding level. Regarding the cross-level interactions, the standard errors are calculated using the *N* of the lowest level (level-1).

Table 2. Regime classification of countries included in analysis

Social dem.	Liberal	Conservative	Mediter.	Post-com.	Post-.com.
Denmark	Ireland	Austria	Cyprus	Albania	Poland
Finland	UK	Belgium	Greece	Bulgaria	Romania
Iceland		France	Italy	Croatia	Russia
Norway		Germany	Portugal	Czechia	Serbia
Sweden		Luxembourg	Spain	Estonia	Slovakia
		Netherlands	Turkey	Hungary	Slovenia
		Switzerland		Latvia	Ukraine
				Lithuania	

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Models

Since we are investigating nested data, we employ multilevel modeling to account for variance in the dependent variable measured at the lowest level, using information from all levels of analysis (Mehmetoglu and Jakobsen, 2017). Multilevel analysis allows us to estimate the residual terms at all levels simultaneously with the linear coefficients (Ringdal, 1992). As our dependent variable is situated at the ordinal level, we present to 2-level ordered logistic[2] models, one general (to test the direct effect of social meetings) and one including cross-level interactions (to see if the direct effect is conditioned by regime type). We thus assume that our observed dependent variable provides incomplete information about a latent variable (Long and Freese, 2014). Y_{ij} tells us the value on *self-rated health* for an individual *i* from a specific survey-country-year *j* (e.g., Sweden-2011); τ_m represents our four cut-points (analogous to intercepts, one for each answer category of *Y* minus the baseline group), and *eij* and *u0j* are the level-1 and level-2 residual terms. Equation (1) shows the model testing the direct effect of social meetings on self-rated health, while Equation (2) includes the moderating effect of regime categories:

$$\begin{aligned}\log\{pr(Y_{ij} \le m)\} = {} & \tau_m + \beta_1 womanij + \beta_2 ageij + \beta_3 edyrsij + \beta_4 partnerij \\ & + \beta_5 childrenij + \beta_6 socialmeetij + \beta_7 healthexpj + \beta_8 GDPpcj \\ & + \beta_9 liberalj + \beta_{10} conservativej + \beta_{11} mediterraneanj \\ & + \beta_{12} postcommunist_j + e_{ij} + u_0 j\end{aligned} \tag{1}$$

$$\begin{aligned}\log\{pr(Yij \le m)\} = {} & \tau_m + \beta_1 womanij + \beta_2 ageij + \beta_3 edyrsij + \\ & \beta_4 partnerij + \beta_5 childrenij + \beta_6 \text{socialmeetij} + \beta_7 healthexpj + \\ & \beta_8 GDPpcj + \beta_9 liberalj + \beta_{10} conservativej + \beta_{11} mediterraneanj + \\ & \beta_{12} postcommunistj + \beta_{13} socialmeetij * liberalj + \\ & \beta_{14} socialmeetij * conservativej + \beta_{15} socialmeetij * mediterraneanj + \\ & \beta_{16} socialmeetij * postcommunistj + eij + u_0 j\end{aligned} \tag{2}$$

In our model, we actually multiply each regime dummy (minus the reference category) with the level-1 variable *social meeting*s, thus producing four interactions (though substantially, only one).

By running an empty model, we calculated the intraclass correlation coefficients for our dependent variable, finding around 91% of its variance to be situated at level-1 and 9% at the upper levels. If the upper-level variation is above 5% it should not be ignored (Mehmetoglu and Jakobsen, 2017) and is also a reason for our choice of modeling. We wished to test a regime hypothesis and present the operationalization of the regime variables in Table 1. The categorization is based on Esping-Andersen's original categories (1990), as well as the updated Mediterranean and Post-communist categories.

We present two models in Table 3, the first showing the direct effect of regime-belonging while the second test the interaction with *social meetings*. All the variables tested at level-1 are statistically significant. Women score lower than men on the dependent variable: the older one is, the poorer their health is reported to be. Education has a positive effect on SRH, and respondents who are married or living with a partner report better health than those living alone. Having children has a negative impact on the dependent, and both country-year-level controls, *GDP per* capita and *health expenditure*, are positive and significant. Not surprisingly, the effect of our main independent variable, *social meetings*, is positive and significant. The more regularly one meets friends, relatives, or colleagues, the better the score on *self-rated health* is. Looking at the substantive effect, *age* is by far the strongest in our models, followed by *education years* and *social meetings*. Looking at the direct effect of the regime categories, the

[2]The analysis is calculated using ordered logistic models. In addition, we ran sensitivity models using three-level multilevel linear models and multilevel logistic regression (on a dichotomized dependent variable). The results from these did not differ substantially from our main analysis.

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Table 3. The effect of *social meetings* on *self-rated health* (1–5), 2002–2019

	Model 1			Model 2		
	B	*SEB*	*p*	*B*	*SEB*	*p*
Level–1 variables						
Woman	−0.179	0.006	0.000	−0.175	0.006	0.000
Age	−0.043	0.000	0.000	−0.043	0.000	0.000
Education years	0.072	0.001	0.000	0.072	0.001	0.000
Partner	0.241	0.007	0.000	0.238	0.007	0.000
Children	−0.036	0.009	0.000	−0.033	0.009	0.000
Social meetings	0.144	0.002	0.000	0.080	0.006	0.000
Level–2 variables						
Health expenditure	0.071	0.037	0.058	0.069	0.038	0.066
GDP per capita	0.011	0.003	0.001	0.011	0.003	0.001
Level–3 variables						
Social Dem. (ref.)						
Liberal	0.429	0.129	0.001	0.230	0.137	0.094
Conservative	−0.169	0.101	0.096	−0.253	0.109	0.021
Mediterranean	0.190	0.135	0.157	−0.241	0.142	0.089
Post-communist	−0.238	0.149	0.109	−0.763	0.154	0.000
Cross-level interactions						
Social*Liberal	–	–	–	0.035	0.009	0.000
Social*Conservative	–	–	–	0.014	0.007	0.060
Social*Mediterranean	–	–	–	0.084	0.008	0.000
Social*Post-comm.	–	–	–	0.108	0.007	0.000
Cut points						
$\tau 1$	−4.818	0.176		−5.156	0.180	
$\tau 2$	−2.841	0.175		−3.173	0.180	
$\tau 3$	−0.672	0.175		−0.998	0.179	
$\tau 4$	1.664	0.175		1.337	0.179	
Variance						
Level–2	0.178	0.017		0.181	0.018	
Level–1 *N*	390,205			390,205		
Level–2 *N*	212			212		
Log likelihood	−445,773.75			−445,535.24		

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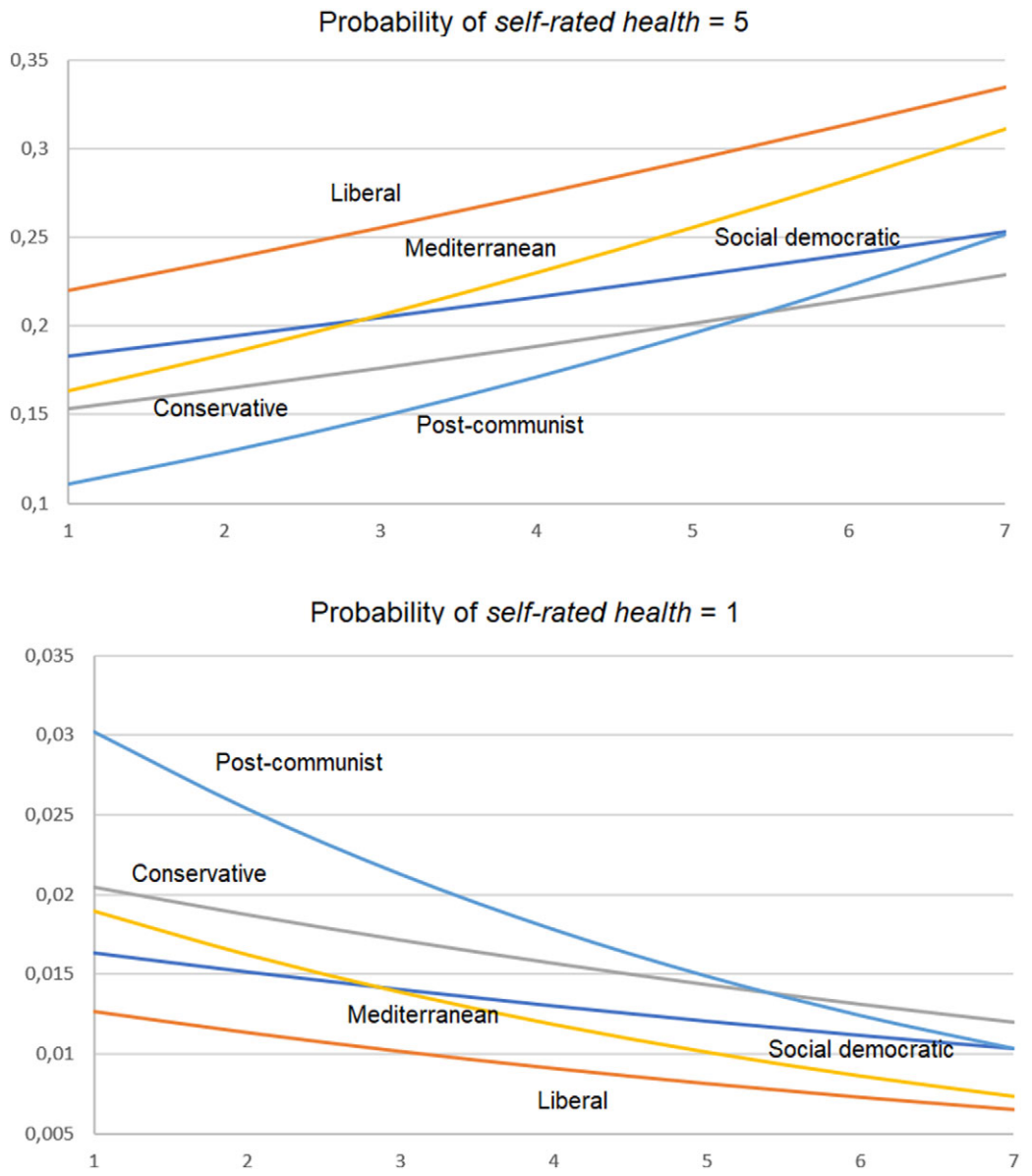

Figure 1. The effect of *social meetings* (1–7) on self-rated health (1–5), moderated by *regime category*.

liberal is positive and significant, while the conservative and post-communist are negative and close to 10% significance (which we should mention as the standard errors for these variables are calculated using the level-2 *N*). The Mediterranean category is positive but not significant.

Looking more specifically at Model 2, we see that all the cross-level interaction terms are positive and statistically significant except for the conservative regime (i.e., positive and close to being significant at the 5% level). First, the effect of social meetings among respondents belonging to the social-democratic regime category is both positive and significant (seen from the variable *social meetings*). The other regime categories receive this positive effect plus their corresponding interaction effects, implying that all other regime categories exhibit a significantly stronger (or nearly significant) effect of social meetings

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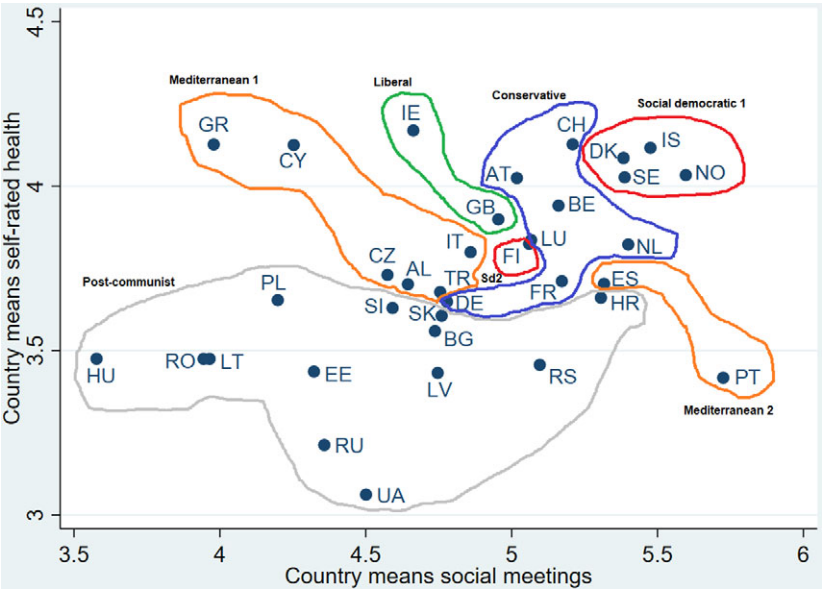

Figure 2. Scatterplot of *social meetings* on *self-rated health*, country means.

compared to the social-democratic regime category (see Figure 1). The total effect is strongest for the post-communist countries, followed by the Mediterranean, liberal, and conservative categories.

In Figure 2, we report the mean scores of the countries included in the analysis of the dependent variable, *self-rated health* and *social meetings*. Here, we see a cluster of social-democratic countries in the upper-right corner of the scatter plot. The conservative countries are also concentrated on the upper-right, though to a lesser degree. The two liberal countries score relatively highly on *self-rated health* but around the middle on *social meetings*. Mediterranean countries are spread across the scatter plot, showing large within-group variation - from Greece in the upper-left corner to Portugal in the lower-right. Post-communist countries generally score low on both variables.

Discussion

The theoretical starting point of the study is Esping-Andersen's (1990) regime categories, in addition to earlier research on the association between social activities and SRH. Not surprisingly, our findings suggest that social meetings have a positive effect on SRH in all of the regime categories. Our main assumption was that the welfare regime moderates the effect social meetings have on SRH. Furthermore, we assumed that social meetings have less effect on SRH in the social democratic welfare regime, due to stronger welfare services, and may mitigate the potential harmful health effects stemming from fewer social meetings. In line with our theoretical assumptions, we find that there is a significant difference between the categories when it comes to the effect of social meetings. More frequent social meetings have a stronger positive effect on SRH in regions with less comprehensive welfare services. This may imply that the effect of social meetings depends on the type of welfare regime. When compared to the social-democratic category, the other regime categories display a significantly stronger effect of social meetings. The total effect is strongest for post-communist countries, followed by the Mediterranean, liberal and conservative categories, while the effect is weakest in the social-democratic category. This suggests that the most comprehensive welfare systems may reduce some of the potential detrimental effects that limited social life and loneliness have on health. One reasoning following these findings is that when people have more available access to social and health services, they become less dependent on social

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networks in their surroundings for their health and wellbeing. It could also be that the professional workers in the welfare services fulfill some of the social needs that individuals might otherwise lack. This finding bears resemblance to Craveiro's (2017) study, which concluded that social networks contribute to moderate socioeconomic differences in health, but that the role of social exchanges differs across welfare regions.

One advantage of this study is that it includes both micro- and macro-level variables, thereby capturing interactional effects. Another strength is that it includes a large number of countries, which allowed for the making of five distinct regime categories. We tested a broad range of variables at all three levels. We tested several level 1 variables, including *woman*, *education years*, and *partner*, as well as the level 2 variables *GDPpc* and *health expenditure per capita.* Anckar (2008) has pointed out that comparisons between highly dissimilar countries with different welfare systems, cultural norms, social structures, and disparities in wealth and health are problematic, as the many differences make it difficult to identify what leads to social exclusion and loneliness. In contrast, comparisons between groups of countries with a shared heritage, similar cultures and norms, and close relations will provide less "background noise" when examining the association between social exclusion and loneliness. The regime categories we use are quite broad, and there will be some variation between countries in each category. Typologies capture general patterns and do not cover variations between countries within the same category. One might therefore overlook substantial differences not only within each category, but also within each country, and even within a country region. For example, within the Scandinavian countries, there are extensive health inequalities (Beckfield and Krieger, 2009).

One must take into consideration that all of the social democratic countries have a high score on social meetings, which may contribute to higher SRH. However, several countries from the other regimes report high levels of social meetings, but have a significantly lower score on SRH. Some of the examples include Spain and Portugal from the Mediterranean category, Hungary from the post-communist category, and to a certain extent, the Netherlands from the conservative category. This indicates that countries with less comprehensive welfare systems experience lower levels of SRH, despite frequent social meetings, which gives further support to the assumption that the regime type may play a moderating role. The social democratic category stands out as the only regime type where all of the countries consistently score high on both social meetings and SRH.

We also must consider that differences in SRH may be due to cultural differences between countries, as opposed to differences in welfare systems. For example, the more pronounced negative consequences of fewer social meetings in the Mediterranean welfare regime may stem from a relatively stronger sense of loneliness experienced in these countries compared to the Nordic countries. The feelings of not living up to the cultural expectations of being social could be a risk factor on its own. The same logic should apply for the other regime types, but based on cultural expectations, it can be stronger in countries with such norms. Perlman and Peplau's (1982) model can also be used to explain individual variations due to social expectations, something that adds to the importance of cultural variations. They ascribe the prevalence of loneliness to be a result of an individual's social expectations, which relates to the cognitive model of loneliness. This model suggests that loneliness is a subjective, unpleasant, and distressing phenomenon resulting from a perceived discrepancy between an individual's desired and achieved levels of social relations. According to this view, loneliness arises from the perception of a mismatch between one's desired level and/or quality of social relationships and the actual level or quality of such relationships. Previous studies also suggest that European cultural differences in loneliness can be attributed to differences in individualism and familialism (Lykes and Kemmelmeier, 2014), and that there are substantial welfare regime differences in loneliness. Furthermore, the literature shows that social life in the Mediterranean countries differs from social life in the Nordic countries, based on several parameters (Viazzo, 2003). These include various aspects of lifestyle, the structure and function of social networks, and the nature of care regimes. When it comes to social networks Mediterranean countries are more familial based in culture (Kalmijn and Saraceno, 2008). Adult children in Mediterranean countries provide more support to parents than their counterparts in the countries of Northern Europe (Daatland and Herlofson, 2003). Albertini et al. (2007) report that transfers from parents to

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children are less frequent in the Southern European countries, but that they are more intense when given. In contrast, participation in voluntary work was found to be higher in Northern Europe, even after taking into account variations in age structure and health status (Erlinghagen and Hank, 2006). Even if we cannot rule out cultural differences as an important explanation for variations, the cultural factor is still built into Esping-Andersen's model, which accordingly may weigh up for some up these potential pitfalls. The Esping-Andersen's typologies are quite broad; we still find that the national/cultural similarities within each category are greater than the differences. The categories also capture several dimensions that may have an impact on welfare, such as structural, social, and cultural factors.

We conclude that the importance of social meetings on SRH is less in social democratic countries, and we assume that one explanation is the more extensive welfare and health services. Following this logic, the health effect from social meetings should be more important in liberal and conservative welfare states, where there is less support from the welfare system. Even if fewer social meetings in social-democratic countries can lead to lower SRH, one implication of the findings is that the social democratic welfare system provides more protection to the individuals. However, this is an interpretation that we cannot draw with certainty from the data.

It is important to point out that there might be possible effects on research results in our study due to the great difference in the sample size within welfare regimes. For instance, Greece and Cyprus stand out within the southern European category. The reason for these differences within each category is that we have theoretically based the empirical analysis on regime typologies. Since we use the welfare regimes as ideal types, we must also expect substantial variations within each category. As one would expect, we see in our data that these variations are largest in categories with many countries. The post-communist category stands out as especially large, while the variation is particularly low in the liberal category. Despite these variations in numbers, the level-1 *N* within each category is quite solid (as the liberal countries have participated in all waves), so even though there are only two countries in Europe in this regime category, our results are based on the answers of almost 40,000 respondents in Ireland and the United Kingdom.

To summarize, social meetings contribute positively to SRH across all countries and in all of the categories. When comparing regime types, social meetings have a limited moderating role on SRH in the social democratic welfare regime. We cannot rule out the possibility that the frequency of social meetings are the driving factor behind a higher a score on SRH also in the Nordic countries. However, since the results vary so much in the other categories, we rely on the main trends in the data to support our argument that the welfare system plays a moderating role. Finally, we call for caution on being too conclusive on the causality between social meetings and SRH. The term "effect" implies causation, and in cross-sectional studies, it is often difficult to be certain about causation. This is certainly the case also for this study, especially when considering the heterogeneity within some of the categories. When considering the potential limitations, of causation, one could add that comparative qualitative research could contribute to further explaining the findings. It would be interesting to explore how people experience the value of social meetings across different welfare systems. This could add more concretely and precisely to the knowledge on what role the welfare system may play in shaping health outcomes.

References

Albertini M, **Kohli M** and **Vogel C** (2007) Intergenerational transfers of time and money in European families: Common patterns – Different regimes? *Journal of European Social Policy 17*(*4*), 319–334. https://doi.org/10.1177/0958928707081068.

Anckar C (2008) On the applicability of the most similar systems design and the most different systems design in comparative research. *International Journal of Social Research Methodology 11*(5), 389–401. https://doi.org/10.1080/13645570701401552.

Ayuso-Sánchez L and **De-Miguel-Luken V** (2016) *Composite Indicators for the Family Change: 'Familism' Vs 'Individualism' in the International Context*. Vienna, Austria: Third ISA Forum of Sociology.

Bambra C and **Beckfield J** (2012) Institutional arrangements as candidate explanations for the US mortality disadvantage. *Report to the National Academy of Sciences*. Retrieved from https://jbeckfield.scholars.harvard.edu/publications/institutional-arrangements-candidate-explanations-us-mortality-disadvantage.

https://doi.org/10.1017/ics.2025.10079 Published online by Cambridge University Press

Bambra C and **Eikemo T** (2009) Welfare state regimes, unemployment and health: A comparative study of the relationship between unemployment and self-reported health in 23 European countries. *Journal of Epidemiology and Community Health 63*(*2*), 92–98. https://doi.org/10.1136/jech.2008.077354.

Beckfield J and **Krieger N** (2009) Epi + demos + cracy: Linking political systems and priorities to the magnitude of health inequities – Evidence, gaps, and a research agenda. *Epidemiological Reviews 31*, 152–177. https://doi.org/10.1093/epirev/mxp002.

Beckfield J, **Olafsdottir S** and **Bakhtiari E** (2013) Health inequalities in global context. *American Behavioral Scientist 57*(*8*), 1014–1039. https://doi.org/10.1177/0002764213487343.

Benjamins MR, **Hummer RA**, **Eberstein IW** and **Nam CB** (2004) *Social Science & Medicine 59*(*6*), 1297–1306. https://doi.org/10.1016/j.socscimed.2003.01.001.

Bergqvist K, **Yngwe MÅ** and **Lundberg O** (2013) Understanding the role of welfare state characteristics for health and inequalities – An analytical review. *BMC Public Health 13*(*1*), 1–20. https://doi.org/10.1186/1471-2458-13-1234.

Berkman LF and **Syme SL** (1979) Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda County residents. *American Journal of Epidemiology 109*(*2*), 186–204. https://doi.org/10.1093/oxfordjournals.aje.a112674.

Buckley TD, **Becker TD** and **Burnette D** (2022) Validation of the abbreviated Lubben social network scale (LSNS-6) and its association with self-rated health amongst older adults in Puerto Rico. *Health and Social Care in the Community 30*(*6*), 5527–5539. https://doi.org/10.1111/hsc.13977.

Chung H and **Muntaner C** (2007) Welfare state matters: A typological multilevel analysis of wealthy countries. *Health Policy 80*(*2*), 328–339. https://doi.org/10.1016/j.healthpol.2006.03.004.

Copeland A, **Bambra C**, **Nylén L**, **Kasim A**, **Riva M**, **Curtis S** and **Burström B** (2015) All in it together? The effects of recession on population health and health inequalities in England and Sweden, 1991–2010. *International Journal of Health Services 45*(*1*), 3–24.

Craveiro D (2017) Ties and inequalities in later life: Welfare state regime and the role of social networks in health inequalities in later life in Europe. *European Societies 19*(*3*), 268–291. https://doi.org/10.1080/14616696.2016.1258084.

Daatland SO and **Herlofson K** (2003) 'Lost solidarity' or 'changed solidarity': A comparative European view of normative family solidarity. *Ageing & Society 23*(*5*), 537–560. https://doi.org/10.1017/S0144686X03001272.

Deacon B (1993) Developments in east European social policy. In Jones C (ed), *New Perspectives on the Welfare State in Europe*. London: Routledge.

DeSalvo KB, **Bloser N**, **Reynolds H**, **He J** and **Muntner P** (2006) Mortality prediction with a single general self-rated health question. *Journal of General Internal Medicine 21*(*3*), 267–275. https://doi.org/10.1111/j.1525-1497.2005.00291.x.

Eikemo TA, **Bambra C**, **Judge K** and **Ringdal K** (2008) Welfare state regimes and differences in self-perceived health in Europe: A multilevel analysis. *Social Science & Medicine*. https://doi.org/10.1016/j.socscimed.2008.01.022.

Erlinghagen M and **Hank K** (2006) The participation of older Europeans in volunteer work. *Ageing & Society*. *26*(*4*), 567–584. https://doi.org/10.1017/S0144686X06004818.

Esping-Andersen G (1990) *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

European Social Survey Cumulative File, ESS (2020) Data file edition 1.0. NSD – Norwegian Centre for Research Data, Norway – Data archive and distributer for ESS ERIC, 1–9. https://doi.org/10.21338/NSD-ESS-CUMULATIVE.

Ferrera M (1996) The southern model of welfare in social Europe. *Journal of European Social Policy 6*(*1*), 17–37. https://doi.org/10.1177/095892879600600102.

Ferrera M and **Rhodes M** (2000) Building a sustainable welfare state. *West European Politics 23*(*2*), 257–282. https://doi.org/10.1080/01402380008425375.

Gierveld JJ (1998) A review of loneliness: Concept and definitions, determinants and consequences. *Reviews in Clinical Gerontology 8*(*1*), 73–80. https://doi.org/10.1017/S0959259898008090.

Gold D (1969) Statistical tests and substantive significance. *American Sociologist 4*(*1*), 42–46.

Henkel RE (1976) *Tests of Significance*. Beverly Hills, CA: Sage.

Kaikkonen R, **Rahkonen O**, **Lallukka T** and **Lahelma E** (2009) Physical and psychosocial working conditions as explanations for occupational class inequalities in self-rated health. *European Journal of Public Health 19*(*5*), 458–463. https://doi.org/10.1093/eurpub/ckp095.

Kalmijn M and **Saraceno C** (2008) A comparative perspective on intergenerational support: Responsiveness to parental needs in individualistic and familialistic countries. *European Societies 10*(*3*), 479–508. https://doi.org/10.1080/14616690701744364.

Kovács JM (2002) Approaching the EU and reaching the US? Rival narratives on transforming welfare regimes in east-Central Europe. *West European Politics 25*(*2*), 175–204. https://doi.org/10.1080/713869590.

Kunst AE, **Bos V**, **Lahelma E**, **Bartley M**, **Lissau I**, **Regidor E**, **Mielck A**, **Cardano M**, **Dalstra JA**, **Geurts JJ**, **Helmert U**, **Lennartsson C**, **Ramm J**, **Spadea T**, **Stronegger WJ** and **Mackenbach JP** (2005) Trends in socioeconomic inequalities in self-assessed health in 10 European countries. *International Journal of Epidemiology 34*(*2*), 295–305. https://doi.org/10.1093/ije/dyh342.

Leão T, **Campos-Matos I**, **Bambra C**, **Russo G** and **Perelman J** (2018) Welfare states, the great recession and health: Trends in educational inequalities in self-reported health in 26 European countries. *PLoS One 13*(*2*), 1–14. https://doi.org/10.1371/journal.pone.0193165.

Leibfried S (1993) Towards a European welfare state? On integrating poverty regimes into the European Community. In Jones C (ed.), *New Perspectives on the Welfare State in Europe*. London: Routledge, pp. 120–143.
Long JS and **Freese J** (2014) *Regression Models for Categorical Dependent Variables Using Stata*, 3rd edn. College Station, TX: Stata Press.
Lubben JE (1988) *Family & Community Health*, *11*(*3*), 42–52. https://doi.org/10.1097/00003727-198811000-00008.
Lykes VA and **Kemmelmeier M** (2014) What predicts loneliness? Cultural difference between individualistic and collectivistic societies in Europe. *Journal of Cross-Cultural Psychology 45*(*3*), 468–490. https://doi.org/10.1177/0022022113509881.
Mackenbach J (2012) The persistence of health inequalities in modern welfare states: The explanation of a paradox. *Social Science & Medicine 75*(*4*), 761–769. https://doi.org/10.1016/j.socscimed.2012.02.031.
Marmot M (2005) Social determinants of health inequalities. *Lancet 365*(*9464*), 1099–1104. https://doi.org/10.1016/S0140-6736(05)71146-6.
Mehmetoglu M and **Jakobsen TG** (2017) *Applied Statistics Using Stata: A Guide for the Social Sciences*. London: Sage.
Morgan DL, **Schuster TL** and **Butler E** (1991) Role reversals in the exchange of social support. *Journal of Gerontology 46*(*5*), 278–287. https://doi.org/10.1093/geronj/46.5.S278.
Mueller JT, **Park SY** and **Mowen AJ** (2019) The relationship between self-rated health and local government spending on parks and recreation in the United States from 1997 to 2012. *Preventive Medicine Reports 13*, 105–112. https://doi.org/10.1016/j.pmedr.2018.11.018.
Noteboom A, **Beekman ATF**, **Vogelzangs N** and **Penninx BWJH** (2016) Personality and social support as predictors of first and recurrent episodes of depression. *Journal of Affection. Disorders 190*, 156–161. https://doi.org/10.1016/j.jad.2015.09.020.
Nyqvist F, **Nygård M** and **Scharf T** (2019) Loneliness amongst older people in Europe: A comparative study of welfare regimes. *European Journal of Ageing 16*(*2*), 133–143. https://doi.org/10.1007/s10433-018-0487-y.
OECD (2017) *Better Life Index.* Available at https://stats.oecd.org/Index.aspx?DataSetCode=BLI2017.
Olsen KM and **Dahl SA** (2007) Health differences between European countries. *Social Science & Medicine 64*(*8*), 1665–1678. https://doi.org/10.1016/j.socscimed.2006.11.031.
Perlman D and **Peplau LA** (1982) Theoretical approaches to loneliness. In Peplau LA and Perlman D (eds), *Loneliness: A Sourcebook of Current Theory, Research and Therapy*. New York: Wiley, pp. 123–134.
Pinquart M and **Sörensen S** (2001) Influences on loneliness in older adults: A meta-analysis. *Basic and Applied Social Psychology 23*(*4*), 245–266. https://doi.org/10.1207/153248301753225702.
Ringdal K (1992) Recent developments in methods for multilevel analysis. *Acta Sociologica 35*(*3*), 235–243. https://doi.org/10.1177/000169939203500305.
Singh SR (2014) Public health spending and population health: A systematic review. *American. Journal of Preventive Medicine 47*(*5*), 634–640. https://doi.org/10.1016/j.amepre.2014.05.017.
Trifiletti R (1999) Southern European welfare regimes and the worsening position of women. *Journal of European Social Policy 9*(*1*), 49–64. https://doi.org/10.1177/095892879900900103.
Viazzo PP (2003) What's so special about the Mediterranean? Thirty years of research on household and family in Italy. *Continuity and Change 18*(*1*), 111-137. https://doi.org/10.1017/S0268416003004442.
World Bank (2022) World Development Indicators. Available at http://data.worldbank.org.

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