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National Perceptions of Over-70s' Status as a Moderator in the Link Between Volunteering and Subjective Well-Being Among Older Adults in 29 European Countries

Julia Sánchez-García[1] | Maria Luísa Lima[2] | Sibila Marques[2] | Ana Isabel Gil-Lacruz[3] | Marta Gil-Lacruz[1]

[1]Department of Psychology and Sociology, University of Zaragoza, Zaragoza, Spain | [2]University Institute ISCTE-IUL, Lisbon CIS-IUL, Portugal | [3]Department of Business Direction and Organization, University of Zaragoza, Zaragoza, Spain

Correspondence: Julia Sánchez-García (juliasanchezg@unizar.es)

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ABSTRACT

This study examines the moderating role of national subjective social status (SSS) perceptions of the general population about individuals over the age of 70 on the relationship between volunteering and subjective well-being (health, happiness, and life satisfaction) of older adults. We hypothesize that in countries where the over-70s are perceived to have higher status, the relationship between volunteering and well-being will be positive. The sample comprises individuals over 70 years of age ($N = 8331$) in 29 countries from Europe. Empirical estimation uses data from the 2008/09 European Social Survey. Multilevel analysis is used to allow the aggregation of variables from different levels: individual, national, and welfare system. The study revealed that there is a positive relationship between the volunteering of older people and their health, happiness, and life satisfaction. The positive association between volunteering and well-being is stronger in countries where the social status of older people is perceived to be higher. By focusing on national-level assessments of SSS, the research highlights how collective perceptions and broader societal attitudes toward aging interact with individual experiences, offering insights into the institutional and cultural determinants of older adults' lived realities across different countries.

1 | Introduction

There is strong evidence of social inequalities of older people, with negative health outcomes on mortality, morbidity, and functional diversity (Huisman et al. 2013). In this context, it is important to consider positive factors that promote the health of older citizens (Read et al. 2016). Formal volunteering has the potential to promote healthy aging (World Health Organization 2015). Indeed, older people who volunteer report high levels of psychological well-being, higher self-esteem, and reduced depressive symptoms (Jongenelis et al. 2021; Lee 2022; Morrow-Howell and Greenfield 2016; Pardasani 2018). However, the participation ratios of those over 70 years of age are not very high (Nichols and Shepherd 2006) compared to those in middle age (50 to 64 years), and vary according to the type of activity (Sánchez-García et al. 2022), and country of origin (Sánchez-García et al. 2022).

Given that several studies have suggested that volunteering can act as a tool for active and healthy ageing across the lifespan, especially for older adults and those transitioning from work to retirement (Morrow-Howell et al. 2017; Russell et al. 2019; Sánchez-García et al. 2022), there is a need to understand why older adults are less likely to volunteer than middle-aged people

in certain countries. The literature on the concept of generativity (e.g., Villar 2012; Serrat, Villar, et al. 2017a, 2017b; Pinazo-Hernandis et al. 2023), argues that cultural demands, that is, the expectations placed on people, can determine the likelihood of engaging in generative behaviors, such as volunteering. For instance, Tabuchi et al. (2015), have reported that when older adults perceive that they are respected by younger generations they are more likely to be generative.

Cultural demands sometimes lead to discriminatory perceptions of older adults based on their age that impact their likelihood of being generative (Serrat et al. 2017a, 2017b), as well as their well-being (Stokes and Moorman 2020). People over 70 years of age could be judged as inferior to middle-aged adults in terms of power, status, and respect (Abrams et al. 2011). Subjective social status describes a person's self-assessed position in a social hierarchy (Kuball et al. 2023) and has an impact on mental and physical health (Hoebel and Lampert 2020). The status attributed to older adults has effects on their social interactions (Fiske et al. 2002) and can also negatively influence their well-being (Hu et al. 2005; Marques et al. 2015). Moreover, as far as we know, high objective status in terms of income and education are associated with voluntary engagement (Wilson et al. 2020) and well-being (Read et al. 2016). Nevertheless, it is not known whether the perceived status of older adults could also affect the well-being of those who volunteer. In addition, expectations and perceptions of older adults could vary according to country of origin (Marques et al. 2015; Vauclair et al. 2015). For instance, increases in population ageing significantly predict negative attitudes towards older people in non-English-speaking Europe (North and Fiske 2015). According to Kornadt et al. (2022), negative views on ageing could be due to individualistic values prevailing in western countries such as Europe, while positive views might be due to collectivist values associated with eastern countries such as China or Japan. Thus, cross-cultural variations in perceptions of ageing show the importance of looking at the country of origin when examining attitudes towards older people (Löckenhoff et al. 2009).

Consequently, the main objective of this study is to examine how the social status attributed to older adults (+70) at the national level might moderate the relationship between volunteering and subjective well-being of older adults (+70) considering different welfare systems. In addition, empirical research on volunteering and well-being faces a number of challenges that we seek to clarify and resolve in this article: (1) The relationship of volunteering and subjective well-being in older people is also not fully understood (Ramia and Voicu 2022) when considering health, happiness and life satisfaction interchangeably. For example, some studies suggest high levels of subjective well-being in early adulthood, a peak in middle adulthood, and high levels of subjective well-being in late adulthood (e.g., Blanchflower and Graham 2022). However, the meta-analysis by Buecker et al. (2023) indicates that the highest life satisfaction is reached at 70 years of age and then begins to decrease until 96 years, suggesting that each well-being indicator may operate differently, requiring further research on the topic. (2) The literature on the subjective well-being of the older citizens is extended by testing the relationship of a national measure on the subjetive social status. (3) There are underlying social and contextual inequalities that might be substantial barriers to gaining benefits from volunteering.

1.1 | Volunteering and Subjective Well-Being

According to Wilson (2000, 215), formal volunteering is defined as "any activity in which time is given freely to benefit another person, group or cause". Subjective well-being refers to the evaluation of the life of an individual from his or her own perspective (Ferring and Boll 2010). This can be understood through self-reported values of health, happiness, and life satisfaction (Levin and Chatters 1998; Ryff 1989; Fasel et al. 2021). Self-rated health is collected through a single question on perceived general health status, which can cover physiological, psychological, and social aspects (Miilunpalo et al. 1997). Life satisfaction is understood as an evaluative dimension of subjective well-being, reflecting the extent to which people perceive their life as meaningful, purposeful, and directed (Pavot and Diener 2009). Happiness, the preponderance of positive over negative affects' (Diener 1984, 543), is the affective measure of well-being. Volunteering might determine each well-being domain differently (Binder 2014).

Numerous studies have described the positive benefits of volunteering for older adults, including increased sense of purpose, quality of life, life satisfaction, self-assessment of health, and decreased of loneliness (Jongenelis et al. 2021; Lee 2022; Pardasani 2018; De Wit et al. 2022). For instance, empirical evidence has shown that older people who volunteer report higher levels of mental health (Jongenelis et al. 2021; De Wit et al. 2022), lower levels of depression (Musick and Wilson 2008) and higher subjective well-being (Gil-Lacruz et al. 2019) than older people who do not volunteer. Relatedly, volunteers also show slower cognitive decline (Han et al. 2020) and higher cardiovascular health (Burr et al. 2021). Indeed, the risk of mortality is reduced for older adults who volunteer (Qu et al. 2020).

The positive link between volunteering and subjective well-being is explained by a wide range of theories. Social Integration Theory suggests that volunteering in formal organizations allows for social bonding (House et al. 1988). In relation, it has been found that older people who volunteer can seek informal help and care more often than non-volunteers when they have health problems, due to increased social network and social connection with others (Zhang and Centola 2019). Theories of Psychological Well-being (Ryff and Keyes 1995) explain that volunteer activities can have well-being benefits through psychological advantages. For instance, volunteers report higher levels of self-esteem and self-efficacy by achieving goals in such activities (Brown et al. 2012). However, the Disengagement Theory posits that old age is a stage characterized by a decline in social activity and participation. According to this perspective, older adults experience a better quality of life by gradually disengaging from their professional and social roles, a process that is considered adaptive in the face of the physical and cognitive limitations associated with age (Cumming and Henry 1961).

Furthermore, well-being and volunteering is profoundly influenced by who we are and where we live (Doyal 2000). The

welfare system shapes the ability and expectations of older adults with their potential to volunteer (Warburton and Jeppsson Grassman 2011), and thus benefits from the activity. As a result of these views and others macro-social factors such as employment, East countries (e.g., Poland) have, in general, the lowest ratios of voluntary participation and well-being in old age (Sánchez-García et al. 2022; Sánchez-García et al. 2022), compared to Nordic countries (e.g., the Netherlands).

1.2 | Benefits of Volunteering in Old Age (+70)

Some empirical studies find that volunteering has greater mental health benefits for older adults than for younger adults (Tabassum et al. 2016). Indeed, less healthy people are more likely to benefit more from volunteering because they have more to gain (De Wit et al. 2022). In this regard, De Wit et al. (2022) conclude that volunteering can improve the health of both younger and older adults, but especially older adults in poorer health. Volunteering can improve happiness (Weziak-Bialowolska et al. 2024) and life satisfaction (Chu and Koo 2023) of older people who volunteer.

This can be explained by several theories. First, Activity Theory suggests that volunteering can have positive effects on older adults, as it helps them to remain active, gain and maintain new social interactions, providing ways to sustain one's self-concept (Herzog and House 1991). Second, the Role Theory (Turner 2001) explains the benefits of volunteering based on the roles people occupy in a society. On the other hand, older adults have fewer roles, therefore volunteering can enhance their well-being by substituting for absent roles, such as might be employment for retirees (Chambre 1984; Hank and Stuck 2008). In relation, Jiang et al. (2021) report high subjective well-being for older adults who engage in volunteer work. Third, the model of successful ageing refers to the realization and self-achievement of an adequate level of physical, social, and mental health in later life (Havighurst 1961). This model includes active participation as one of its indicators (Rowe and Kahn 1997), including volunteering, which can protect older adults from illness and disability (Kail and Carr 2017).

Despite the benefits of volunteering for the well-being of older adults, most studies show that there is an inverted U-shaped relationship between age and volunteering (e.g., Salamon et al. 2018). Thus, volunteering peaks in middle age, and then begins to decline (Musick and Wilson 2008). However, inverted U-shaped participation rates may vary by country. For example, while the peak of volunteering participation is reached in middle age for Denmark, Hungary, Poland, Italy and Portugal (Salamon et al. 2018); in the Netherlands it occurs between the ages of 35 and 55, with lower rates for the rest (Bekkers et al. 2020); and, in Germany for older individuals (Kelle et al. 2025; Simonson et al. 2022).

Empirical evidence so far has so far focused on finding out, on the one hand, what determines volunteering, highlighting high income and education (Walker et al. 2020) and, on the other hand, what determines a good subjective state of well-being, also highlighting high income and education (Ryff et al. 2021). However, less attention has been paid to the reasons why older people do not volunteer as much and therefore cannot benefit from their activity.

1.3 | Subjective Social Status of Older People

Cultural factors such as practices, beliefs, and values partly shape the view of ageing, for example by defining the active role of older people as grandparents in families (Kornadt et al. 2022). Socio-ecological factors such as economic, political or welfare systems can also shape the view of ageing (VoA; Kornadt et al. 2022). For example, setting the retirement age, that is, the age at which a person can (or should) stop working, is determined by society, which shapes cultural beliefs about the roles of the elderly (VoA; Settersten and Hagestad 2015). PVoA are beliefs about how older adults should behave in a society (e.g., altruistic or active; De Paula Couto et al. 2022; North and Fiske 2015).

One of the beliefs is associated with active ageing, which implies that older adults should maintain an active and productive lifestyle to continue contributing to society (De Paula Couto et al. 2022). Some studies show that the above belief influences the intention to volunteer (Wirth, de Paula Couto, Fung et al. 2025; Wirth, de Paula Couto, Molina Sander et al. 2025). As an example, Wirth, de Paula Couto, Fung et al. (2025) found that the effects of the PVoA—related to contribution to society—on volunteering depended on the strength of the endorsement of the respective norm. Additionally, using data from the European Social Survey (ESS), Bowen and Skirbekk (2013) found that in countries with higher participation of older people in volunteering activities, older people were generally perceived as more competent.

According to the Stereotype Content Model (SCM; Fiske et al. 2002), older adults can be stereotyped as low in competence and high in warmth, i.e., as incapable of achieving their goals and with a connotation of low status in the social structure but as people with good intentions. This ambivalence in stereotypes is what is known as “doddering but dear” (Cuddy and Fiske 2002) and can be detrimental to the empowerment of older adults (Lamont et al. 2015), health and longevity (Swift et al. 2017). In relation, adults who continue to contribute to society after retirement may still be perceived negatively (Lytle and Levy 2022; Shimizu et al. 2024). Consequently, the psychological and health benefits of productive ageing (De Paula Couto et al. 2022) could be affected.

Differences in modernization is one of the factors that can affect VoA. The Modernization Theory of Cowgill (1974) is a main theory to explain the decline in the subjective social status (SSS) attributed to older adults over time, differing across societies (Vauclair and Rudnev 2019). The term status refers to “prestige, social standing or position in a society” (Marques et al. 2015; Vauclair et al. 2015). According to Cowgill (1974), in traditional societies associated with agricultural production, the role assigned to older adults is important with high status in their families and communities. In contrast, with progress in the development of societies through industrial modes of production, socioeconomic changes occur that decrease the SSS of older adults and increase the status of younger age groups.

Empirical research on VoA in cross-cultural studies seemed to support Cowgill's theory (Bengtson et al. 1975). However, Vauclair et al. (2015), found in 25 European countries a positive association between modernization and SSS of older adults. In other words, people perceived the social status of older people as higher in modernised societies. The authors explain that this could be due to efforts to help older adults (e.g., policies against age discrimination), allowing them to maintain a high status in advanced stages of modernization. Moreover, De Tavernier et al. (2019), show that in more modern societies, such as European countries, there are more favourable SSS of older adults. In contrast, Abrams et al. (2011), report that even in countries where the SSS of older adults is higher, older adults are still perceived to have a lower status than middle-aged people.

In this regard, evidence shows that, in countries where older adults are perceived to have lower social status, strong identification with older adults is related to higher levels of poor subjective health (Lima et al. 2014). However, there have been no European studies examining whether national SSS on older adults impacts not only on their self-reported health, but also on happiness and life satisfaction as indicators of subjective well-being. Moreover, no studies are found that analyze whether the SSS attributed to older adults at national level can impact the well-being of older adults who volunteer. There is even less research on whether volunteering can be a protective mechanism (Kim et al. 2020; Jiang et al. 2021) for the well-being in the face of such beliefs about how older adults should behave in a society.

Developing a comparative framework on the effect of the status attributed to older adults at a national level, macro-structural explanations are needed. Therefore, we consider the welfare systems of Europe (Nordic, Continental, Southern, East, Anglo-Saxon; Esping-Andersen 1990). According to Esping-Andersen (1990), regimes refer to the interrelationship between the state, the market and the household to bring about the production of welfare.

Based on the theoretical and empirical literature, we hypothesize that the relationship between volunteer participation and well-being in older adults will be moderated by the perception of the social status of old age in each society, such that this relationship will be stronger in societies where older adults are perceived as having a high status. This study contributes to the literature in different ways: (1) Analyzing the moderating effect of the subjective social status attributed to citizens over 70 years of age (late life; Baltes and Smith 2003) at national level on the relationship between volunteering and the well-being of older adults (+70) in Europe; (2) Distinguishing between different indicators of subjective well-being through different indicators (Health, Happiness and Life Satisfaction); (3) Controlling for fixed and random effects through a hierarchical data (Individual, National and Welfare system) by using the European Social Survey (ESS; 2008/10). The study focuses on Europe as the region of the world where population ageing is most advanced (Eurostat 2025).

2 | Methods

We used data from 29 countries from the European Social Survey (ESS; European Social Survey Round 4 Data, 2008–2010). Round 4 was chosen due to the availability of Social Status attributed to older adults variable, which was used at national level. A subsample of adults over 70 years of age ($N = 8331$) was used. The selection of the age range over 70 years is since the European Social Survey (ESS) specifically assesses the subjective social status of people aged 70 years and older. Therefore, the choice of age is aligned with the availability of the variable in the ESS. The sample size depends on all the countries that collect the measures under study.

The sociodemographic variables measured were gender ("Men" = 1, and "Women" = 2); educational level coded as: "Primary education" (1 = Primary education, 0 = Other), "Secondary education" (1 = Secondary education, 0 = Other), and tertiary education (1 = Tertiary education, 0 = Other); income level coded as: "Low income" (1 = Low income, 0 = Other), "Middle income" (1 = Middle income, 0 = Other), and "High income" (1 = High income, 0 = Other); marital status coded as: Married (1 = Married, 0 = Other), Divorced (1 = Divorced, 0 = Other), Widowed (1 = Widowed, 0 = Other), and Single (1 = Single, 0 = Other).

The dependent variable "subjective well-being" was measured with self-reported values of health, happiness, and life satisfaction. *Health* was measured through the item "How is your overall health?" (Bowling 2005). The response scale ranged from 1 ("very good") to 5 ("very bad"). The *Happiness* item was: "Taking everything together, how happy would you say you are?"; while the *Life Satisfaction* question was "All things considered, how satisfied are you with your life in general today?". The response scale for both measures was 11 points between 0 "Extremely unhappy/unsatisfied" and 11 "Extremely happy/satisfied". The three well-being indicators were dichotomized following the principle of representativeness at the reference level ("medium health", "high happiness" and "high life satisfaction"; MacCallum et al. 2002). Dichotomization is useful when the distribution of data does not follow normality (Streiner 2002), as is the case in this study. In addition, summarizing the information to facilitate its interpretation is one of the fundamental objectives of both descriptive and inferential statistics.

Volunteering, as individual-level variable, was measured by asking: "In the last month have you done any voluntary work?" (Gil-Lacruz and Marcuello 2013). We coded 1 = Yes and 0 = No.

The national subjective social status of people aged 70+ (SSS) was asked to the general population. It was calculated by aggregating the average individual level indicator for each country, this means, the national mean by subtracting the individual's observation, creating a country-level variable. The national measure was created before restricting the sample to the population over 70 years of age. Respondents answered the following question: "I'm interested in how you think most people in [country] view the status of people over 70. Using this card please tell me where most people would place the status of..... . people over 70?". The response scale was Likert-type from 0 = "extremely low status" to 10 = "extremely high status".

2.1 | Empirical Strategy

Due to the hierarchical structure of the data: individual and national, we used multilevel models (STATA: melogit) for the

analyses. Multilevel regression models serve to analyze a single dependent variable at the lowest level of disaggregation and incorporate explanatory variables at the individual level and variables at the macro level. To facilitate the interpretation of the results, we decided to maintain high levels of well-being: Health "Good or Very good", Happiness "Happy or Extremely happy" and Life Satisfaction "Satisfied or Extremely satisfied".

The estimation considers a nonlinear response model in which the data are structured for 8331 individuals ($i = 1, ..., 8331$) from 29 European countries ($j = 1, ..., 29$). The probability for each of the well-being indicators (Health_{ij}, Happiness_{ij} and $\text{LifeSatisfaction}_{ij}$) was estimated as,

$$\text{Wellbeing}_{ij} = \alpha + X'_{ij}\beta_j + u_j + e_{ij}$$

Where Wellbeing_{ij} refers to the dichotomous response variable Y (Which can have a value of 1 = high well-being or 0 = otherwise) and a set of independent variables ($X_1, X_2, ... X_k$). It is established that, α and β are the fixed effects parameters or coefficients (α is the *intercept* and β the *slope*), in principle unknown of the model, while u are the random effects. The term error is characterized by $e_{ij} \approx N(0, s^2)$.

The objective was to estimate β as accurately as possible. Three models were estimated for each of the dependent variables. Previously, the null model, that is, without predictors for Wellbeing_{ij}, was calculated to determine the intraclass correlation coefficient (ICC) with values are between 0 (all the variability is within the groups) and 1 (all variability is found between groups; Huang 2018). The indicators Wellbeing_{ij} obtained an ICC between 0.13 (Happiness and Life Satisfaction) and 0.20 (Health), which shows that 13%–20% of the variance of the dependent variable can be explained by second level units (variables measured at the national level). This means that we can perform multilevel analysis by allowing clustering.

The first analysis tested a model in which volunteering at the individual level and sociodemographic variables were introduced as control variables (gender, marital status, educational level, and income level) to predict Health, Happiness, and Life Satisfaction (Model 1). The second step tested a model in which we included SSS at the national level (Model 2). The third step (Model 3) considers the interaction between volunteering × SSS, and the welfare systems as a macro-level control variable (Esping-Andersen 1998). Since multiple analyses were performed and a large sample was used, a stricter significance threshold ($p < 0.01$) was adopted to reduce the risk of type I errors (Benjamin et al. 2018). The pseudo-R^2 was calculated following the method of Snijders and Bosker (1999). Compared to the null model, the pseudo- R^2 increased from 0.15 to 0.38 for medium health, from 41 to 70 for high happiness, and from 43 to 81 for high life satisfaction, indicating that the inclusion of the explanatory variables substantially improved the model fit for all three variables.

The welfare systems (Esping-Andersen 1990) are: (1) Nordic—Sweden, Finland, Norway, and Denmark; (2) Continental—Germany, Belgium, France, the Netherlands, and Switzerland; (3) Mediterranean—Cyprus, Spain, Portugal, Turkey, Greece, and Israel; (4) East—Poland, Romania, Hungary, Bulgaria, Estonia, Ukraine, Slovakia, Russia, Latvia, Croatia, Czech Republic, and Slovenia; (5) Anglo-Saxon—Ireland and the United Kingdom.

3 | Results

A descriptive analysis of the variables included in the study was performed, observing both means and standard deviations in Table 1. Overall, the mean scores for the indicators of subjective well-being were moderate: perceived health ($M = 0.31$, SD = 0.46), happiness ($M = 0.41$, SD = 0.49) and life satisfaction ($M = 0.40$, SD = 0.49). In the case of educational level, people with primary education rated their health as "good" or "very good" ($M = 0.52$, SD = 0.50), as well as high happiness ($M = 0.53$, SD = 0.50) and life satisfaction ($M = 0.53$, SD = 0.50) to a greater extent than people with tertiary education. However, people with secondary and tertiary income levels reported higher scores on measures of well-being than people with lower incomes. People reported low rates of volunteering ($M = 0.08$, SD = 0.26). Volunteering activity showed a mean health score of 0.13 (SD = 0.34), therefore the perception of "very good" health among volunteers was not very high. This result is similar for happiness and life satisfaction. Regarding perceived social status, scores were moderate, thus, participants reported that the status of people aged 70+ was average, as well as on each well-being indicator.

Correlation analyses were then conducted to assess the associations between the main study variables. Volunteering showed a positive and significant correlation with self-reported health ($r = 0.16$, $p < 0.001$), happiness ($r = 0.14$, $p < 0.001$) and life satisfaction ($r = 0.16$, $p < 0.001$), indicating that volunteering is positively associated with subjective well-being. SSS at the national level was also positively associated with self-reported health ($r = 0.28$, $p < 0.001$), happiness ($r = 0.31$, $p < 0.001$) and life satisfaction ($r = 0.30$, $p < 0.001$). It is worth mentioning that having a tertiary level of education and high income are positively related to volunteering ($r = 0.10$, $p < 0.001$ and $r = 0.04$, $p < 0.001$, respectively) and to all three indicators of well-being. However, primary education level was positively related to national SSS ($r = 0.06$, $p < 0.001$). In other words, the data show a significant association between a low level of education and a higher perception of social status among the over-70s. This relationship should be interpreted with caution due to differences in aggregation levels.

Table 2. shows the aggregate estimates of the probability of self-reported medium health. In Model 1, the significant variance of the random effect, σ^2, supports the use of a Multilevel Logit model to analyze the dependent variable, since it captures both fixed and random effects in explaining self-reported health. Sociodemographic variables are included in the fixed effects. The odds of self-reported medium health were significantly higher for people with high income level. The ANOVA estimate for random effects revealed notable differences between countries and their welfare systems. Specifically, greater variability was found in countries with the same welfare system than with different welfare systems.

TABLE 1 | First descriptive analysis.

	Total		Health		Happiness		Life satisfaction	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Total			0.31	0.46	0.41	0.49	0.40	0.49
Gender								
Female	0.59	0.49	0.52	0.50	0.56	0.50	0.56	0.50
Male	0.41	0.49	0.48	0.50	0.44	0.50	0.44	0.50
Education level								
Primary studies[a]	0.59	0.48	0.52	0.50	0.53	0.50	0.53	0.50
Secondary studies[b]	0.23	0.50	0.26	0.44	0.25	0.43	0.26	0.44
Tertiary studies[c]	0.18	0.37	0.22	0.41	0.21	0.41	0.21	0.41
Income level								
Low income	0.37	0.49	0.19	0.39	0.18	0.38	0.16	0.37
Middle income	0.41	0.49	0.43	0.49	0.47	0.50	0.47	0.50
High income	0.21	0.41	0.38	0.49	0.35	0.48	0.37	0.48
Marital status								
Married	0.45	0.50	0.53	0.50	0.53	0.50	0.51	0.50
Divorced	0.05	0.22	0.06	0.24	0.05	0.21	0.05	0.23
Widow	0.41	0.49	0.33	0.47	0.34	0.47	0.34	0.47
Single	0.05	0.22	0.07	0.25	0.06	0.23	0.05	0.23
Voluntary work								
Voluntary work	0.08	0.26	0.14	0.34	0.12	0.32	0.13	0.33
Subjective social status								
Individual *SSS*	0.46	0.25	0.53	0.23	0.54	0.24	0.54	0.23
Welfare system								
Nordic	0.12	0.32	0.18	0.39	0.20	0.40	0.22	0.41
Anglo-Saxon	0.08	0.27	0.15	0.36	0.13	0.33	0.12	0.32
Continental	0.19	0.39	0.30	0.46	0.26	0.44	0.26	0.44
Southern	0.22	0.42	0.19	0.39	0.18	0.39	0.17	0.37
East	0.39	0.49	0.49	0.50	0.22	0.41	0.23	0.42

Note: $N = 8331$ observations.
[a]Primary studies: Less than lower secondary education and Lower secondary education completed.
[b]Secondary education: Upper secondary education completed.
[c]Tertiary education: Postsecondary non-tertiary education completed, and Tertiary education completed.
Individual *SSS* = Subjective social status at individual level.

In Model 2, we found the same significant effect. In Model 3, we found that the odds of self-reported medium health were significant for the interaction term between volunteering and subjective social status. This suggests that the positive association between subjective social status and self-reported medium health is weaker for individuals who engage in volunteering. Specifically, as subjective social status increases, the odds of reporting medium health decrease among volunteers compared to non-volunteers. This is because for people with high perceived social status, volunteering could be related to a lower probability of being in medium health, favoring them to be in high or low health. In addition, the fact that the interaction is significant in the third model could indicate that volunteering only has a significant impact on certain groups or under certain conditions. Given that the interaction term between volunteering and subjective social status was significant and had an odds ratio below 1 ($OR = 0.62$, 95% CI [0.74, 0.98], $p = 0.001$), we conducted an additional analysis considering high and low self-reported health levels separately. The unexplained variance is reduced in each model, therefore the inclusion of the selected variables is able to explain a large part of the results.

Table 3. shows the aggregate estimates of the probability of reporting the three levels of health in Model 3 as it includes the interaction effect of volunteering and subjective social status as a comparison. The full models are available upon request. In Model 1 for high health, the odds reveal that men perceive their health to be higher than women ($OR = 0.82$, CI [0.73, 0.2], $p = 0.001$). In relation, women were more likely to

TABLE 2 | Multilevel regression models for medium health: odds ratio (and 95% confidence interval).

	Model 1	Model 2	Model 3
Fixed effects			
Female	1.04 (0.94, 1.15)	1.08 (0.98, 1.20)	1.08 (0.98, 1.20)
Male[a]	—	—	—
Primary studies[a]	—	—	—
Secondary studies	1.04 (0.93, 1.18)	1.05 (0.93, 1.19)	1.05 (0.93, 1.19)
Tertiary studies	0.99 (0.87, 1.14)	0.98 (0.86, 1.13)	0.99 (0.86, 1.13)
Low income[a]	—	—	—
Middle income	1.46*** (1.30, 1.64)	1.46*** (1.30, 1.64)	1.47*** (1.30, 1.65)
High income	0.94 (0.80, 1.09)	0.93 (0.79, 1.09)	0.95 (0.80, 1.11)
Married[a]	—	—	—
Divorced	0.88 (0.72, 1.10)	0.91 (0.73, 1.13)	0.91 (0.73, 1.13)
Widow	0.90 (0.81, 1.00)	0.89 (0.79, 0.99)	0.88 (0.80, 0.99)
Single	1.00 (0.81, 1.23)	1.00 (0.80, 1.25)	1.01 (0.80, 1.26)
Voluntary Work	0.86 (0.71, 1.02)	0.86 (0.71, 1.04)	0.87*** (2.27, 34.56)
SSS	—	0.98 (0.88, 1.10)	1.13 (0.98, 1.32)
Volunteering*SSS	—	—	0.62*** (0.47, 0.82)
Nordic[a]	—	—	—
Anglo-Saxon	—	—	0.65 (0.41, 1.03)
Continental	—	—	0.82 (0.57, 1.17)
Southern	—	—	1.06 (0.75, 1.50)
East	—	—	1.25 (0.87, 1.81)
Random effects			
$\sigma 2$	0.07	0.07	0.05
LR test (Prob > χ^2)	0.00	0.00	0.00
ICC	0.02	0.02	0.02
Pseudo-R^2	0.15	0.13	0.38
Analysis of variance			
Between groups	97.0490881	98.5777201	
Within groups	397.475012	409.532065	
Bartlett's test	0.00	0.00	

Note: $N = 8331$ observations. Coefficients are reported. *SSS* = Subjective social status at national level.
[a]Variable of reference.
[b]The Wald endogeneity test was estimated. There is no empirical evidence of endogeneity.
*** and ** explanatory variables are statistically significant at the 99% and 99.9% confidence levels, respectively, based on a significance threshold of $p < 0.01$ and $p < 0.001$.

report lower health when estimates were made for low health ($OR = 1.17$, CI [1.04, 1.33], $p = 0.01$). Moreover, having a tertiary level of education ($OR = 1.51$, CI [1.29, 1.76], $p = 0.001$) and having high income ($OR = 2.84$, CI [2.39, 3.39], $p = 0.001$) increase the likelihood of reporting high health and reduce the likelihood of reporting low health ($OR = 0.64$, CI [0.54, 0.76], $p = 0.001$ and $OR = 0.29$, CI [0.23, 0.35], $p = 0.001$, respectively). In terms of volunteering, individuals over the age of 70 who engage in volunteering have higher odds of reporting better health compared to non-volunteers ($OR = 1.66$, CI [1.37, 2.01], $p = 0.001$) and lower odds of reporting a low health ($OR = 0.37$, CI [0.26, 0.53], $p = 0.001$). The ANOVA estimate for random effects revealed notable differences between countries and their welfare systems (for high health: $F(4,8087) = 3445.34$, $p < 0.001$, $\eta^2 = 0.63$, and low health: $F(4,8087) = 4507.22$, $p < 0.001$, $\eta^2 = 0.691$, respectively). Specifically, the variance in random effects was higher among countries with different welfare systems compared to those with similar systems. These findings validate the use of welfare systems as a method for classifying countries.

The SSS variable related to subjective social status at national level is introduced in Model 2. The odds of the individual variables considered in Model 1 remain stable as a sign of the robustness of the results. The SSS is positively associated with good health ($OR = 1.73$, CI [1.33, 2.27],

TABLE 3 | Multilevel regression models analysis results for model 3: odds ratios across three health levels.

	Low health	Medium health	High health
Fixed effects			
Female	1.13 (1.00, 1.29)	1.08 (0.98, 1.20)	0.80*** (0.71, 0.90)
Male[a]	—	—	—
Primary studies[a]	—	—	—
Secondary studies	0.66 (0.57, 0.77)	1.05 (0.93, 1.19)	0.33*** (1.19, 1.59)
Tertiary studies	0.65 (0.54, 0.78)	0.99 (0.86, 1.13)	0.41*** (1.24, 1.72)
Low income[a]	—	—	—
Middle income	0.46*** (0.40, 0.52)	1.47*** (1.30, 1.65)	1.59*** (1.36, 1.84)
High income	0.31*** (0.25, 0.39)	0.95 (0.80, 1.11)	2.68*** (2.23, 3.21)
Married[a]	—	—	—
Divorced	1.14 (0.86, 1.51)	0.91 (0.73, 1.13)	1.04 (0.81, 1.33)
Widow	1.49*** (1.30, 1.70)	0.88 (0.80, 0.99)	0.79*** (0.70, 0.90)
Single	0.84 (0.61, 1.15)	1.01 (0.80, 1.26)	1.09 (0.85, 1.38)
Voluntary Work	1.42 (0.19, 1.46)	0.87*** (2.27, 3.56)	0.40 (0.80, 2.06)
SSS	0.88 (0.70, 1.10)	1.13 (0.98, 1.32)	1.01 (0.74, 1.38)
Volunteering*SSS	0.75 (0.48, 1.15)	0.62*** (0.47, 0.82)	1.32 (0.95, 1.83)
Nordic[a]	—	—	—
Anglo-Saxon	0.61 (0.28, 1.31)	0.65 (0.41, 1.03)	1.84 (0.71, 4.75)
Continental	1.14 (0.64, 2.04)	0.82 (0.57, 1.17)	1.15 (0.55, 2.42)
Southern	1.82 (1.05, 3.16)	1.06 (0.75, 1.50)	0.77 (0.38, 1.56)
East	3.34*** (1.90, 5.89)	1.25 (0.87, 1.81)	0.25*** (0.12, 0.53)
Random effects			
$\sigma 2$	0.13	0.05	0.28
LR test (Prob > χ^2)	0.00	0.00	0.00
ICC	0.02	0.02	0.08
Pseudo-R^2	0.83	0.38	0.70

Note: $N = 8331$ observations. Coefficients are reported. *SSS* = Subjective social status at national level.
[a]Variable of reference.
[b]The Wald endogeneity test was estimated. There is no empirical evidence of endogeneity.
*** and ** explanatory variables are statistically significant at the 99% and 99.9% confidence levels, respectively, based on a significance threshold of $p < 0.01$ and $p < 0.001$.

$p = 0.001$) and negatively low health ($OR = 0.60$, CI [0.49, 0.74], $p = 0.001$). This means that when society perceives older adults as having a high social status, older adults report good health.

In Model 3, the interaction term indicates that when European citizens perceive that older people have a high status in society, individuals who volunteer are more likely to report high health state ($OR = 1.32$, CI [0.95, 1.83], $p = 0.05$), in relation to Hypothesis 1. Thus, the SSS at the national level moderates the relationship between volunteering and self-reported health (Figure 1). The relationship, however, was not highly significant ($p > 0.01$), and was not significant for low health. ($OR = 0.74$, CI [0.48, 1.15], $p = 0.19$). Welfare systems are included in Model 3 to introduce a control variable at the macro level. Living in an East country is negatively associated to good health compared to living in a country with a Nordic welfare system. Therefore, living in an eastern or southern country is positively associated with low health. This result is relevant because regional divergence persists when we control a set of exploratory variables.

Table 4 replicates the same procedure for self-reported happiness. In Model 1, The coefficients reveal that being single, divorced or widowed reduces the probability of being very happy compared to being married. Having a higher level of education and income increases the likelihood of reporting being very happy. As in the case of high health, participation in volunteer activities is positively associated with high levels of happiness, and subjective socioeconomic status (SSS) is positively related to high happiness in Model 2. However, the interaction term was not found to be significant in Model 3. In terms of welfare systems, being a resident of a Nordic country increases the likelihood of being happy compared to other welfare regimes.

Finally, Table 5 replicates the same procedure for self-reported life satisfaction. The results of Model 1 show that being married

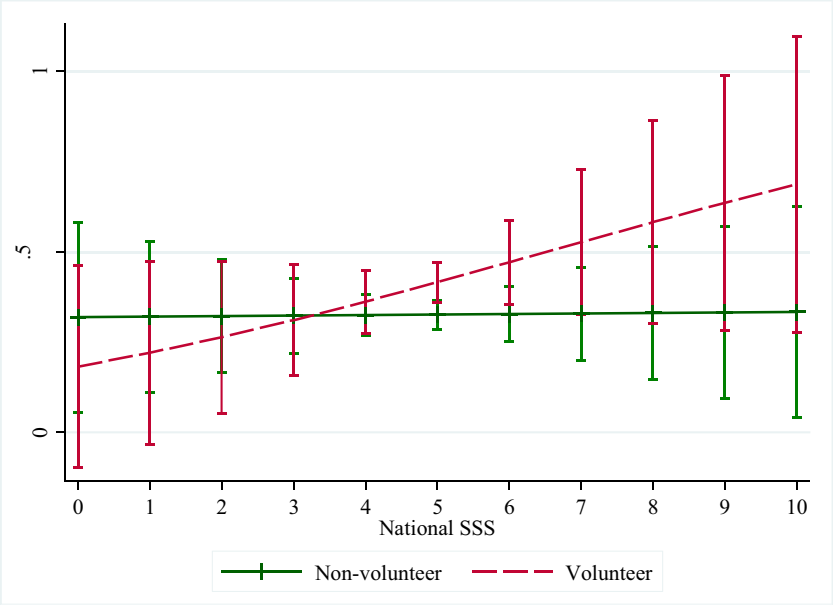

FIGURE 1 | Effect of volunteering on health moderated by national SSS. This figure shows the interaction between volunteering and the national SSS as it relates to health. The *Y*-axis represents the level of health, while the *X*-axis shows the national SSS values. *SSS* = Subjective social status at national level.

and having a middle and high income increase the probability of having high life satisfaction in contrast to other marital statuses such as being single or having a low income. Similar to the previous results, participation in volunteering is significantly associated with higher levels of life satisfaction. In addition, perceiving the over-70s as having high status is associated with higher life satisfaction among older people. Nevertheless, as with happiness, the interaction term is not significant. The comparison of welfare systems shows that living in a Nordic country increases the likelihood of reporting higher life satisfaction than in the other systems.

4 | Discussion

The aim of this study was to test the moderating effect of the social status attributed to older adults at national level on the relationship between volunteering and the well-being modeled as health, happiness, and life satisfaction of older adults. First, the results suggest that volunteering has a beneficial effect on the well-being of older adults over 70 years of age in Europe. Specifically, it is found that people who volunteer are 1.7 times more likely to report better health and life satisfaction, and 1.5 times more likely to report high happiness, compared to those who do not volunteer. This is consistent with previous empirical evidence that finds that older adults who volunteer report higher health (Jongenelis et al. 2021; Nichols et al. 2024), happiness (Lawton et al. 2021) and life satisfaction (Ling et al. 2023) than non-volunteers, by developing, for example, community bonds (Villar and Serrat 2014). In relation, theories of psychological well-being (Ryff and Keyes 1995) explain that volunteering promotes the development of self-esteem, self-efficacy, and purpose in life.

Second, we find that, in European countries where older adults are perceived to have a higher social status, they tend to report greater well-being. Specifically, when people report high social status over older people, people over age 70 are 1.7 times more likely to report better health, 1.6 times more likely to report high happiness, and 1.5 times more likely to report high life satisfaction. This supports the evidence that SSS has a strong relationship with reported health, even controlling for objective SES (Tan et al. 2020). The authors explain that this may be due to the social comparison of one's own SSS with that of others. The SSS attributed to older people is another clear example of social comparison but not focused on one's own SSS but on that of older adults. Yan et al. (2024) also found a positive association between SSS, poor health, happiness and life satisfaction in individuals aged 55 and older. Our results complement the previous literature by focusing on a national SSS measure about individuals in their 70s as well as its relationship with the three well-being indicators in the less researched population aged 70 and older. These results support some studies manifesting that perceptions of social status about older individuals can be associated with their well-being (Hu et al. 2005).

Third, in contexts where older adults are perceived to have a higher social status, individuals over 70 who engage in volunteering tend to report better health. Older adults can be affected by the status attributed to them because of the ageist prejudice that exists around them (Steward et al. 2022). Ageism is one of the most institutionalized and socially condoned forms of prejudice (Swift et al. 2017), with stereotypes about old age based on low competence and ability and with detrimental effects on health (Nelson 2005). In relation, high status groups are often seen as high in competence (Fiske et al. 1999), and when older people are perceived as competent, they tend to report higher well-being (Fasel et al. 2021). Thus, it makes sense that older volunteers report good health when society perceives them as having high status, because of the positive traits associated with this rank. However, the strength of the relationship

TABLE 4 | Multilevel regression models for happiness: odds ratio (and 95% confidence interval).

	Model 1	Model 2	Model 3
Fixed effects			
Female	1.11 (0.99, 1.24)	1.12 (0.99, 1.24)	1.12 (0.99, 1.25)
Male[a]	—	—	—
Primary studies[a]	—	—	—
Secondary studies	1.15 (1.01, 1.32)	1.18 (1.03, 1.35)	1.18** (1.03, 1.36)
Tertiary studies	1.23** (1.06, 1.43)	1.24** (1.07, 1.45)	1.24** (1.07, 1.45)
Low income[a]	—	—	—
Middle income	2.12*** (1.86, 2.41)	2.10*** (1.84, 2.40)	2.07*** (1.81, 2.37)
High income	3.78*** (3.20, 4.47)	3.76*** (3.16, 4.48)	3.64*** (3.06, 4.33)
Married[a]	—	—	—
Divorced	0.50*** (0.40, 0.64)	0.51*** (0.40, 0.65)	0.50*** (0.39, 0.63)
Widow	0.62*** (0.55, 0.70)	0.63*** (0.56, 0.71)	0.63*** (0.56, 0.72)
Single	0.62*** (0.50, 0.80)	0.65*** (0.51, 0.82)	0.64*** (0.50, 0.82)
Voluntary Work	1.45*** (1.19, 1.76)	1.48*** (1.21, 1.81)	1.31 (0.30, 5.72)
SSS	—	1.61*** (1.35, 1.93)	1.34** (1.11, 1.63)
Volunteering*SSS	—	—	1.02 (0.76, 1.36)
Nordic[a]	—	—	—
Anglo-Saxon	—	—	0.73 (0.41, 1.31)
Continental	—	—	0.56** (0.36, 0.88)
Southern	—	—	0.33*** (0.22, 0.52)
East	—	—	0.32*** (0.20, 0.50)
Random effects			
$\sigma 2$	0.48	0.23	0.09
LR test (Prob > χ^2)	0.00	0.00	0.00
ICC	0.13	0.06	0.03
Pseudo-R^2	0.41	0.70	0.87
Analysis of variance			
Between groups	2746.38894	820.224264	
Within groups	1167.74085	836.779706	
Bartlett's test	0.00	0.00	

Note: $N = 8331$ observations. Coefficients are reported. *SSS* = Subjective social status at national level.
[a]Variable of reference.
[b]The Wald endogeneity test was estimated. There is no empirical evidence of endogeneity.
*** and ** explanatory variables are statistically significant at the 99% and 99.9% confidence levels, respectively, based on a significance threshold of $p < 0.01$ and $p < 0.001$.

was not very high, thus future studies could examine what variables might be influencing the relationship between volunteering and SSS.

Moreover, individuals of any age might consider it positive to attribute high status to adults over 70, because it would mean that they live in a democratic society concerned with the rights of all its citizens. Indeed, democracy offers more personal and political freedoms and opportunities for lower socioeconomic status groups, which translates into higher well-being for its citizens (Mungar and Cramer 2021). Consequently, the attribution of high status can be a proxy indicator for the perception of high democracy, which has a positive relationship with well-being.

According to the Baltes and Baltes (1997) selection-optimization-compensation model, compensating for age-related losses is crucial for adaptive development. Thus, volunteering could compensate for age-related decline in beliefs and reduced social networks (Cudjoe et al. 2020). The finding of no significant interactions for happiness and life satisfaction demonstrates that volunteering acts as a protective mechanism for ageist evaluations of certain aspects of subjective well-being.

Finally, regarding welfare systems, in Europe, Nordic countries report the highest levels of well-being with the lowest in the East countries. Sánchez-García et al. (2022), explain this by reporting that in the Nordic welfare system high GDP per capita and government spending on social problems can improve the

TABLE 5 | Multilevel regression models for d life satisfaction: odds ratio (and 95% confidence interval).

	Model 1	Model 2	Model 3
Fixed effects			
Female	1.03 (0.92, 1.15)	1.04 (0.93, 1.17)	1.04 (0.93, 1.17)
Male[a]	—	—	—
Primary studies[a]	—	—	—
Secondary studies	1.04 (0.91, 1.19)	1.07 (0.93, 1.23)	1.07 (0.93, 1.23)
Tertiary studies	1.11 (0.96, 1.29)	1.10 (0.94, 1.29)	1.10 (0.94, 1.29)
Low income[a]	—	—	—
Middle income	2.47*** (2.16, 2.82)	2.49*** (2.17, 2.86)	2.47*** (2.16, 2.83)
High income	4.78*** (4.02, 5.67)	4.81*** (4.03, 5.74)	4.69*** (3.93, 5.95)
Married[a]	—	—	—
Divorced	0.74*** (0.58, 0.93)	0.74*** (0.58, 0.94)	0.73*** (0.57, 0.93)
Widow	0.71*** (0.63, 0.81)	0.72*** (0.63, 0.82)	0.72*** (0.64, 0.82)
Single	0.77 (0.61, 0.98)	0.74*** (0.58, 0.95)	0.74*** (0.58, 0.95)
Voluntary Work	1.68*** (1.37, 2.06)	1.68*** (1.37, 2.07)	1.35 (0.31, 5.90)
SSS	—	1.54*** (1.26, 1.90)	1.46*** (1.14, 1.84)
Volunteering*SSS	—	—	1.04 (0.77, 1.40)
Nordic[a]	—	—	--
Anglo-Saxon	—	—	0.50 (0.24, 1.02)
Continental	—	—	0.43** (0.25, 0.76)
Southern	—	—	0.35*** (0.20, 0.62)
East	—	—	0.26*** (0.15, 0.45)
Random effects			
$\sigma 2$	0.51	0.30	0.15
LR test (Prob > χ^2)	0.00	0.00	0.00
ICC	0.14	0.08	0.04
Pseudo-R^2	0.43	0.64	0.81
Analysis of variance			
Between groups	2465.30777	1193.05168	
Within groups	1973.72862	1372.83747	
Bartlett's test	0.00	0.00	

Note: $N = 8331$ observations. Coefficients are reported. *SSS* = Subjective social status at national level.
[a]Variable of reference.
[b]The Wald endogeneity test was estimated. There is no empirical evidence of endogeneity.
*** and ** explanatory variables are statistically significant at the 99% and 99.9% confidence levels, respectively, based on a significance threshold of $p < 0.01$ and $p < 0.001$.

health of citizens. Therefore, it is still necessary to create institutional framework conditions that are more conducive to the well-being of people in numerous European countries, especially in those that have suffered a humanitarian crisis (Scharbert et al. 2024).

In addition, it is important to note that the variable used "national subjective social status" does not directly measure individual perceptions of the status of older adults but rather captures how participants consider that most people in their country perceive the status of older adults. Therefore, the meta-perceptual nature of the item should be considered when interpreting the results. This indicator could reflect not only the shared social perception of older adults, but also possible stereotypes or social norms internalized by individuals. Future research should complement this measure with objective measures (e.g., socioeconomic indicators) to test the relationships found.

4.1 | Practical Implications

The findings of this study could be of interest for the achievement of the United Nations Sustainable Development Goals. Specifically, Goal 3: "*Ensure healthy lives and promote well-being for all at all ages*", and Goal 10: "*Reducing inequalities and ensuring that no one is left behind*". We understand that volunteering promotes active aging (Pinazo-Hernandis et al. 2023).

Understanding the risks of SSS about older adults provides useful information for promoting the well-being of the population. Policymakers should pay attention to ways in which policies and practices can reduce the risks of discrimination. Specifically, they can (1) Increase age diversity in the paid workplace and in volunteering, both in hiring and in providing training opportunities; (2) Increase intergenerational contact in volunteering to reduce the effects of age-based stereotypes, which can reduce anxiety and one's own biases (Abrams et al. 2008); (3) Encourage intergenerational exchange through friendly city initiatives to facilitate positive intergroup relations (Allport 1954) and reduce social exclusion; (4) Encourage younger people to develop healthy views on aging (Crawford 2015) to reduce ageism from an early age; (5) Encourage the inclusion of older adults in decision-making processes within government structures (Swift et al. 2017).

4.2 | Limitations and Future Studies

An important limitation of this study is its cross-sectional design, which makes it impossible to establish firm causal relationships between the variables analysed. Although it has been suggested that volunteering could positively influence the subjective well-being of older adults in line with the majority of the literature (e.g., Jiang et al. 2021; Meneghini and Colledani 2024; Shi and Jiang 2024), it is also possible that people with higher well-being have a greater predisposition to participate in volunteering activities (Lawton et al. 2021), or that there is a reciprocal relationship between the two variables (Weziak-Bialowolska et al. 2024). Furthermore, we cannot rule out the influence of variables that mediate the relationship between volunteering and subjective well-being in older people not included in the model, which could be affecting the observed association, such as loneliness or level of engagement (Lühr et al. 2022; Meneghini and Colledani 2024). Future longitudinal or panel studies would be needed to explore more precisely the direction and causality of these effects.

Some limitations that need to be addressed. First, we conducted our study in European countries, which means that we cannot generalize our results to other parts of the world. Then, the number of countries worldwide could also be expanded to perform a comparative analysis. Second, there is limited knowledge about life course variation in the associations between volunteering and well-being. Therefore, it would be necessary to expand the sample to include individuals aged 50 and older, which is a key age in preparation for retirement. Finally, we did not know whether the results found are typical of any category of volunteering or not. The ESS does not provide information to be able to examine whether these results vary according to the typology of volunteer work. However, the World Values Survey does provide this information, and future studies could test whether such findings are replicated across a range of volunteering activities. It would also be interesting to examine the role of generativity, as generative goals can be relevant in relation to voluntary participation, particularly in old age (Serrat et al. 2017a, 2017b).

In addition, a possible limitation of the present study is that well-being has been measured mainly through indicators of hedonic well-being, such as life satisfaction and happiness. However, eudaimonic well-being—which includes dimensions such as life purpose, personal growth or meaning in life—is also an important facet of overall well-being (Deci and Ryan 2008). Future research could incorporate these dimensions to provide a broader understanding of the factors associated with well-being in older people.

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Ethics Statement

Ethical review and approval were not required for this study, as it involved the analysis of publicly available data.

Consent

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

A publicly available data set was analyzed in this study. This data can be found here: data set from the European Social Survey (2008-2010). This study was not preregistered.

References

Abrams, D., R. J. Crisp, S. Marques, E. Fagg, L. Bedford, and D. Provias. 2008. "Threat Inoculation: Experienced and Imagined Intergenerational Contact Prevents Stereotype Threat Effects on Older People's Math Performance." *Psychology and Aging* 23, no.4: 934–939. https://doi.org/10.1037/a0014293.

Abrams, D., P. S. Russell, M. Vauclair, and H. J. Swift. 2011. *Ageism in Europe: Findings From the European Social Survey*. Technical Report. Age UK.

Allport, G. W., K. Clark, and T. Pettigrew. 1954. *The Nature of Prejudice*. Addison-Wesley.

Baltes, P. B., and M. M. Baltes. 1997. "Selective Optimization With Compensation (SOC): Psychological Resilience in Later Adulthood." In *Annual Review of Gerontology and Geriatrics: Vol. 17. Focus on the End of Life: Scientific and Social Issues*, edited by M. P. Lawton and K. W. Schaie, 1–34. Springer Publishing.

Baltes, P. B., and J. Smith. 2003. "New Frontiers in the Future of Aging: From Successful Aging of the Young Old to the Dilemmas of the Fourth Age." *Gerontology* 49, no. 2: 123–135. https://doi.org/10.1159/000067946.

Bekkers, R., B. Gouwenberg, and T. Schuyt. 2020. *Geven in Nederland [Giving in the Netherlands]. 2020*. Lenthe Publishers.

Bengtson, V. L., J. J. Dowd, D. H. Smith, and A. Inkeles. 1975. "Modernization, Modernity, and Perceptions of Aging: A Cross-Cultural Study." *Journal of Gerontology* 30, no. 6: 688–695.

Benjamin, D. J., J. O. Berger, M. Johannesson, et al. 2018. "Redefine Statistical Significance." *Nature Human Behaviour* 2, no. 1: 6–10. https://doi.org/10.1038/s41562-017-0189-z.

Binder, M. 2014. "Volunteering and Life Satisfaction: A Closer Look at the Hypothesis That Volunteering More Strongly Benefits the

Unhappy." *Applied Economics Letters* 22, no. 11: 874–885. https://doi.org/10.1080/13504851.2014.985364.

Blanchflower, D. G., and C. L. Graham. 2022. "The Mid-Life Dip in Well-Being: A Critique." *Social Indicators Research* 161, no. 1: 287–344. https://doi.org/10.1007/s11205-021-02773-w.

Bowen, C. E., and V. Skirbekk. 2013. "National Stereotypes of Older People's Competence Are Related to Older Adults' Participation in Paid and Volunteer Work." *Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 68, no. 6: 974–983. https://doi.org/10.1093/geronb/gbt101.

Bowling, A. 2005. "Just One Question: If One Question Works, Why Ask Several?" *Journal of Epidemiology and Community Health* 59, no. 5: 342–345. https://doi.org/10.1136/jech.2004.021204.

Brown, K. M., R. Hoye, and M. Nicholson. 2012. "Self-Esteem, Self-Efficacy, and Social Connectedness as Mediators of the Relationship Between Volunteering and Well-Being." *Journal of Social Service Research* 38, no. 4: 468–483. https://doi.org/10.1080/01488376.2012.687706.

Buecker, S., M. Luhmann, P. Haehner, et al. 2023. "The Development of Subjective Well-Being Across the Life Span: A Meta-Analytic Review of Longitudinal Studies." *Psychological Bulletin* 149, no. 7–8: 418–446. https://doi.org/10.1037/bul0000401.

Burr, J. A., J. E. Mutchler, and S. H. Han. 2021. "Volunteering and Health in Later Life." In *Handbook of Aging and the Social Sciences*, edited by K. Ferraro and D. Carr, 303–319. Academic Press.

Chambre, S. M. 1984. "Is Volunteering a Substitute for Role Loss in Old Age? An Empirical Test of Activity Theory." *Gerontologist* 24, no. 3: 292–298.

Chu, J. T., and M. Koo. 2023. "Life Satisfaction and Self-Esteem in Older Adults Engaging in Formal Volunteering: A Cross-Sectional Study in Taiwan." *International Journal of Environmental Research and Public Health* 20, no. 6: 4934. https://doi.org/10.3390/ijerph20064934.

Cowgill, D. O. 1974. "Aging and Modernization: A Revision of the Theory." In *Late Life: Communities and Environmental Policy*, edited by J. F. Gubrium, 123146. Charles C. Thomas.

Crawford, P. A. 2015. "Focus on Elementary: Rock of Ages: Developing Healthy Perspectives of Aging in the Elementary Grades: Patricia A. Crawford and April Mattix Foster, Editors." *Childhood Education* 91, no. 5: 395–401. https://doi.org/10.1080/00094056.2015.1090858.

Cuddy, A. J. C., and S. T. Fiske. 2002. "Doddering but Dear: Process, Content, and Fucntion in Stereotyping of Older Persons." In *Ageism: Stereotyping and Prejudice Against Older Persons*, edited by T. D. Nelson, 3–26. MIT Press.

Cudjoe, T. K. M., D. L. Roth, S. L. Szanton, J. L. Wolff, C. M. Boyd, and R. J. Thorpe. 2020. "The Epidemiology of Social Isolation: National Health and Aging Trends Study." *Journals of Gerontology: Series B* 75, no. 1: 107–113. https://doi.org/10.1093/geronb/gby037.

Cumming, E., and W. Henry. 1961. *Growing Old: The Process of Disengagement*. Basic Books.

Deci, E. L., and R. M. Ryan. 2008. "Self-determination Theory: A Macrotheory of Human Motivation, Development, and Health." *Canadian Psychology/Psychologie Canadienne* 49, no. 3: 182–185. https://doi.org/10.1037/a0012801.

Diener, E. 1984. "Subjective Well-Being." *Psychological Bulletin* 95: 542–575.

Doyal, L. 2000. "Gender Equity in Health: Debates and Dilemmas." *Social Science & Medicine (1982)* 51, no. 6: 931–939. https://doi.org/10.1016/s0277-9536(00)00072-1.

Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*. Princeton University Press.

Esping-Andersen, G. 1998. "The Three Political Economies of the Welfare State." In *Power Resources Theory and the Welfare State*, edited by J. O. ' Connor and G. M. Olsen, 1–74. University of Toronto Press.

Eurostat. 2025. "Population Structure and Ageing." Retrieved March 27, 2025. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Population_structure_and_ageing.

Fasel, N., C.-M. Vauclair, M. L. Lima, and D. Abrams. 2021. "The Relative Importance of Personal Beliefs, Meta-Stereotypes and Societal Stereotypes of Age for the Wellbeing of Older People." *Ageing & Society* 41, no. 12: 2768–2791. https://doi.org/10.1017/S0144686X2000053.

Ferring, D., and T. Boll. 2010. "Subjective Well-Being in Older Adults: Current State and Gaps of Research." *Ageing, Health and Pensions in Europe: An Economic and Social Policy Perspective*: 173–212.

Fiske, S. T., A. J. C. Cuddy, P. Glick, and J. Xu. 2002. "A Model of (Often Mixed) Stereotype Content: Competence and Warmth Respectively Follow From Perceived Status and Competition." *Journal of Personality and Social Psychology* 82: 878–902. https://doi.org/10.1037//0022-3514.82.6.878.

Fiske, S. T., J. Xu, A. C. Cuddy, and P. Glick. 1999. "(Dis) Respecting Versus (Dis) Liking: Status and Interdependence Predict Ambivalent Stereotypes of Competence and Warmth." *Journal of Social Issues* 55, no. 3: 473–489.

Gil-Lacruz, A. I., and C. Marcuello. 2013. "Voluntary Work in Europe: Comparative Analysis Among Countries and Welfare Systems." *Social Indicators Research* 114, no. 2: 371–382. https://doi.org/10.1007/s11205-012-0150-5.

Gil-Lacruz, M., M. I. Saz-Gil, and A. I. Gil-Lacruz. 2019. "Benefits of Older Volunteering on Wellbeing: An International Comparison." *Frontiers in Psychology* 10: 2647. https://doi.org/10.3389/fpsyg.2019.02647.

Han, S. H., J. S. Roberts, J. E. Mutchler, and J. A. Burr. 2020. "Volunteering, Polygenic Risk for Alzheimer's Disease, and Cognitive Functioning Among Older Adults." *Social Science & Medicine (1982)* 253: 112970. https://doi.org/10.1016/j.socscimed.2020.112970.

Hank, K., and S. Stuck. 2008. "Volunteer Work, Informal Help, and Care Among the 50+ in Europe: Further Evidence for 'Linked' Productive Activities at Older Ages." *Social Science Research* 37, no. 4: 1280–1291. https://doi.org/10.1016/j.ssresearch.2008.03.001.

Havighurst, R. J. 1961. "Successful Aging." *Gerontologist* 1: 8–13. https://doi.org/10.1093/geront/1.1.8.

Herzog, A. R., and J. S. House. 1991. "Productive Activities and Aging Well." *Generations* 15, no. 1: 49–54.

Hoebel, J., and T. Lampert. 2020. "Subjective Social Status and Health: Multidisciplinary Explanations and Methodological Challenges." *Journal of Health Psychology* 25, no. 2: 173–185. https://doi.org/10.1177/1359105318800804.

House, J. S., K. R. Landis, and D. Umberson. 1988. "Social Relationships and Health." *Science* 241, no. 4865: 540–545.

Hu, P., N. E. Adler, N. Goldman, M. Weinstein, and T. E. Seeman. 2005. "Relationship Between Subjective Social Status and Measures of Health in Older Taiwanese Persons." *Journal of the American Geriatrics Society* 53: 483–488. https://doi.org/10.1111/j.1532-5415.2005.53169.x.

Huang, F. L. 2018. "Multilevel Modeling Myths." *School Psychology Quarterly* 33, no. 3: 492–499. https://doi.org/10.1037/spq0000272.

Huisman, M., S. Read, C. A. Towriss, D. J. H. Deeg, and E. Grundy. 2013. "Socioeconomic Inequalities in Mortality Rates in Old Age in the World Health Organization Europe Region." *Epidemiologic Reviews* 35: 84–97. https://doi.org/10.1093/epirev/mxs010.

Jiang, D., L. M. Warner, A. M. Chong, T. Li, J. K. Wolff, and K. L. Chou. 2021. "Benefits of Volunteering on Psychological Well-Being in Older Adulthood: Evidence From a Randomized Controlled Trial." *Aging & Mental Health* 25, no. 4: 641–649.

Jongenelis, M. I., B. Jackson, J. Warburton, R. U. Newton, and S. Pettigrew. 2021. "Aspects of Formal Volunteering That Contribute to

Favourable Psychological Outcomes in Older Adults." *European Journal of Ageing* 19, no. 1: 107–116. https://doi.org/10.1007/s10433-021-00618-6.

Kail, B. L., and D. C. Carr. 2017. "Successful Aging in the Context of the Disablement Process: Working and Volunteering as Moderators on the Association Between Chronic Conditions and Subsequent Functional Limitations." *Journals of Gerontology. Series B, Psychological Sciences and Social Sciences* 72, no. 2: 340–350. https://doi.org/10.1093/geronb/gbw060.

Kelle, N., J. Simonson, and G. Henning. 2025. "Baby Boomers and Their Voluntary Engagement: A Cohort Comparison Among the Middle-Aged and Older Population in Germany." *Nonprofit and Voluntary Sector Quarterly* 54, no. 1: 129–150. https://doi.org/10.1177/08997640241240417.

Kim, E. S., A. V. Whillans, M. T. Lee, Y. Chen, and T. J. VanderWeele. 2020. "Volunteering and Subsequent Health and Well-Being in Older Adults: An Outcome-Wide Longitudinal Approach." *American Journal of Preventive Medicine* 59, no. 2: 176–186.

Kornadt, A. E., C. de Paula Couto, and K. Rothermund. 2022. "Views on Aging—Current Trends and Future Directions for Cross-Cultural Research." *Online Readings in Psychology and Culture* 6, no. 2: 5. https://doi.org/10.9707/2307-0919.1176.

Kuball, T., C. Hohaus, and G. Jahn. 2023. "Feeling Valued in Old Age: A Qualitative Exploration of the Social Status in Later Life." *Innovation in Aging* 7: 673.

Lamont, R. A., H. J. Swift, and D. Abrams. 2015. "A Review and Meta-Analysis of Age-Based Stereotype Threat: Negative Stereotypes, Not Facts, Do the Damage." *Psychology and Aging* 30, no. 1: 180–193. https://doi.org/10.1037/a0038586.

Lawton, R. N., I. Gramatki, W. Watt, and D. Fujiwara. 2021. "Does Volunteering Make Us Happier, or Are Happier People More Likely to Volunteer? Addressing the Problem of Reverse Causality When Estimating the Wellbeing Impacts of Volunteering." *Journal of Happiness Studies* 22, no. 2: 599–624. https://doi.org/10.1007/s10902-020-00242-8.

Lee, S. 2022. "Volunteering and Loneliness in Older Adults: A Parallel Mediation Model." *Aging & Mental Health* 26, no. 6: 1234–1241. https://doi.org/10.1080/13607863.2021.1913477.

Levin, J. S., and L. M. Chatters. 1998. "Religion, Health, and Psychological Well-Being in Older Adults: Findings From Three National Surveys." *Journal of Aging and Health* 10, no. 4: 504–531.

Lima, M. L., C.-M. Vauclair, and S. Marques. 2014. "Identity, Ageism and Subjective Health in Later Life: The Role of Social Norms." *Supplement, Gerontologist* 54, no. Suppl. 2: 1–10.

Ling, W. H. H., W. P. V. Lee, W. H. Chui, and K. M. C. Sin. 2023. "Older Adults and Volunteering: Mental Wellness, Motivation, and Satisfaction." *Activities, Adaptation & Aging* 47, no. 4: 482–500.

Löckenhoff, C. E., F. De Fruyt, A. Terracciano, et al. 2009. "Perceptions of Aging Across 26 Cultures and Their Culture-Level Associates." *Psychology and Aging* 24, no. 4: 941–954. https://doi.org/10.1037/a0016901.

Lühr, M., M. K. Pavlova, and M. Luhmann. 2022. "They Are Doing Well, but Is It by Doing Good? Pathways From Nonpolitical and Political Volunteering to Subjective Well-Being in Age Comparison." *Journal of Happiness Studies* 23, no. 5: 1969–1989. https://doi.org/10.1007/s10902-021-00480-4.

Lytle, A., and S. R. Levy. 2022. "Reducing Ageism Toward Older Adults and Highlighting Older Adults as Contributors During the COVID-19 Pandemic." *Journal of Social Issues* 78, no. 4: 1066–1084. https://doi.org/10.1111/josi.12545.

MacCallum, R. C., S. Zhang, K. J. Preacher, and D. D. Rucker. 2002. "on the Practice of Dichotomization of Quantitative Variables." *Psychological Methods* 7, no. 1: 19–40. https://doi.org/10.1037/1082-989X.7.1.19.

Marques, S., H. J. Swift, C.-M. Vauclair, M. L. Lima, C. Bratt, and D. Abrams. 2015. "'Being Old and Ill' Across Different Countries: Social Status, Age Identification and Older People's Subjective Health." *Psychology & Health* 30, no. 6: 699–714. https://doi.org/10.1080/08870446.2014.938742.

Meneghini, A. M., and D. Colledani. 2024. "'Doing Well by Doing Good': When and How Volunteering Fosters Hedonic and Eudaimonic Well-Being." *Humanistic Psychologist* 52, no. 1: 102–118. https://doi.org/10.1037/hum0000303.

Miilunpalo, S., I. Vuori, P. Oja, M. Pasanen, and H. Urponen. 1997. "Self-Rated Health Status as a Health Measure: The Predictive Value of Self-Reported Health Status on the Use of Physician Services and on Mortality in the Working-Age Population." *Journal of Clinical Epidemiology* 50: 517–528.

Morrow-Howell, N., E. G. Gonzales, R. A. Harootyan, Y. Lee, and B. W. Lindberg. 2017. "Approaches, Policies, and Practices to Support the Productive Engagement of Older Adults." *Journal of Gerontological Social Work* 60, no. 3: 193–200. https://doi.org/10.1080/01634372.2016.1275912.

Morrow-Howell, N., and E. A. Greenfield. 2016. "Productive Engagement in Later Life." In *Handbook of Aging and the Social Sciences*, 8th ed. edited by L. K. George and K. F. Ferraro, 293–313. Elsevier Inc.

Mungar, A., and K. Cramer. 2021. "An International Study of Democracy and Perceived Wellbeing." *Journal of Interpersonal Relations, Intergroup Relations and Identity* 14: 162–176.

Musick, M. A., and J. Wilson. 2008. *Volunteers: A Social Profile*. Indiana University Press.

Nelson, T. D. 2005. "Ageism: Prejudice Against Our Feared Future Self." *Journal of Social Issues* 61, no. 2: 207–221. https://doi.org/10.1111/j.1540-4560.2005.00402.x.

Nichols, B., R. Wilson, A. Rodrigues, and C. Haighton. 2024. "Exploring the Effects of Volunteering on the Social, Mental, and Physical Health and Well-Being of Volunteers: An Umbrella Review." *Voluntas: International Journal of Voluntary and Nonprofit Organizations* 35: 1–32. https://doi.org/10.1007/s11266-023-00573-z.

Nichols, G., and M. Shepherd. 2006. "Volunteering in Sport: The Use of Ratio Analysis to Analyse Volunteering and Participation." *Managing Leisure* 11, no. 4: 205–216. https://doi.org/10.1080/13606710600893684.

North, M. S., and S. T. Fiske. 2015. "Modern Attitudes Toward Older Adults in the Aging World: A Cross-Cultural Meta-Analysis." *Psychological Bulletin* 141, no. 5: 993–1021. https://doi.org/10.1037/a0039469.

Pardasani, M. 2018. "Motivation to Volunteer Among Senior Center Participants." *Journal of Gerontological Social Work* 61, no. 3: 313–333. https://doi.org/10.1080/01634372.2018.1433259.

De Paula Couto, M. C., T. Huang, and K. Rothermund. 2022. "Age Specificity in Explicit and Implicit Endorsement of Prescriptive Age Stereotypes." *Frontiers in Psychology* 13: 820739. https://doi.org/10.3389/fpsyg.2022.820739.

Pavot, W., and E. Diener. 2009. "Review of the Satisfaction With Life Scale." In *Assessing Well-Being: The Collected Works of Ed Diener*, edited by E. Diener, 101–117. Springer Science + Business Media. https://doi.org/10.1007/978-90-481-2354-4_5.

Pinazo-Hernandis, S., J. J. Zacares, R. Serrat, and F. Villar. 2023. "The Role of Generativity in Later Life in the Case of Productive Activities: Does the Type of Active Aging Activity Matter?" *Research on Aging* 45, no. 1: 35–46. https://doi.org/10.1177/01640275221122914.

Qu, H., S. Konrath, and M. Poulin. 2020. "Which Types of Giving Are Associated With Reduced Mortality Risk Among Older Adults?" *Personality and Individual Differences* 154: 109668. https://doi.org/10.1016/j.paid.2019.109668.

Ramia, I., and M. Voicu. 2022. "Life Satisfaction and Happiness Among Older Europeans: The Role of Active Ageing." *Social Indicators Research* 160, no. 2–3: 667–687. https://doi.org/10.1007/s11205-020-02424-6.

Read, S., E. Grundy, and E. Foverskov. 2016. "Socio-Economic Position and Subjective Health and Well-Being Among Older People in Europe: A Systematic Narrative Review." *Aging & Mental Health* 20, no. 5: 529–542. https://doi.org/10.1080/13607863.2015.1023766.

Rowe, J. W., and R. L. Kahn. 1997. "Successful Aging." *Gerontologist* 37, no. 4: 433–440. https://doi.org/10.1093/geront/37.4.433.

Russell, A. R., A. Nyame-Mensah, A. de Wit, and F. Handy. 2019. "Volunteering and Wellbeing Among Ageing Adults: A Longitudinal Analysis." *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations* 30: 115–128.

Ryff, C. D., and C. L. M. Keyes. 1995. "The Structure of Psychological Well-Being Revisited." *Journal of Personality and Social Psychology* 69, no. 4: 719–727. https://doi.org/10.1037/0022-3514.69.4.719.

Ryff, C. D., J. M. Boylan, and J. A. Kirsch. 2021. "Eudaimonic and Hedonic Well-Being: An Integrative Perspective With Linkages to Sociodemographic Factors and Health." In *Measuring Well-Being: Interdisciplinary Perspectives From the Social Sciences and the Humanities*, edited by M. T. Lee, L. D. Kubzansky, and T. J. VanderWeele, 92–135. Oxford University Press. https://doi.org/10.1093/oso/9780197512531.003.0005.

Salamon, L. M., M. Sokolowski, and A. Haddock. 2018. "The Scope and Scale of Global Volunteering: Current Estimates and Next Steps." *A Background Paper for the 2018 State of the World's Volunteerism Report*. United Nations Volunteers. https://www.unv.org/sites/default/files/The%20Scope%20and%20Scale%20SWVR2018%20final.pdf.

Sánchez-García, J., A. I. Gil-Lacruz, and M. Gil-Lacruz. 2022. "The Influence of Gender Equality on Volunteering Among European Senior Citizens." *Voluntas: International Journal of Voluntary and Nonprofit Organizations* 33, no. 3: 820–832. https://doi.org/10.1007/s11266-021-00443-6.

Scharbert, J., S. Humberg, L. Kroencke, et al. 2024. "Psychological Well-Being in Europe After the Outbreak of War in Ukraine." *Nature Communications* 15, no. 1: 1202.

Serrat, R., F. Villar, M. F. Giuliani, and J. J. Zacarés. 2017b. "Older People's Participation in Political Organizations: The Role of Generativity and Its Impact on Well-Being." *Educational Gerontology* 43, no. 3: 128–138. https://doi.org/10.1080/03601277.2016.1269541.

Serrat, R., F. Villar, J. Warburton, and A. Petriwskyj. 2017a. "Generativity and Political Participation in Old Age: A Mixed Method Study of Spanish Elders Involved in Political Organisations." *Journal of Adult Development* 24, no. 3: 163–176. https://doi.org/10.1007/s10804-016-9255-4.

Settersten, Jr., R. A., and G. O. Hagestad. 2015. "Subjective Aging and New Complexities of the Life Course." In *Annual Review of Gerontology and Geriatrics, Vol. 35, 2015: Subjective Aging: New Developments and Future Directions*, edited by M. Diehl and H.-W. Wahl, 29–53. Springer Publishing Company.

Shi, J., and C. Jiang. 2024. "Association Between Participation in Adult Education and Subjective Wellbeing Among Older Adults: The Mediating Roles of Social Isolation and Digital Isolation and the Moderating Roles of Educational Level." *Educational Gerontology* 50, no. 8: 746–761. https://doi.org/10.1080/03601277.2024.2328890.

Shimizu, Y., M. Suzuki, Y. Hata, and T. Sakaki. 2024. "Prescriptive Stereotypes, Negative Attitudes Toward Older Adults, and Social Participation: Surveys on Younger and Older Japanese." *Cogent Gerontology* 3, no. 1: 2310096. https://doi.org/10.1080/28324897.2024.2310096.

Simonson, J., N. Kelle, C. Kausmann, and C. Tesch-Römer. 2022. "Unterschiede und Ungleichheiten im freiwilligen Engagement [Differences and Inequalities in Voluntary Engagement]." In *Freiwilliges Engagement in Deutschland: Der Deutsche Freiwilligensurvey 2019 [Voluntary Engagement in Germany: The German Survey on Volunteering, 2019]*, edited by J. Simonson, N. Kelle, C. Kausmann, and C. Tesch-Römer, 67–94. https://doi.org/10.1007/978-3-658-35317-9_5.

Snijders, T. A. B., and R. J. Bosker. 1999. *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. Sage Publications.

Steward, A. T., L. Hasche, and J. A. Laser. 2022. "Do Internalized Age Stereotypes Mediate the Relationship Between Volunteering and Social Connectedness for Adults 50+?" *Journal of Aging Studies* 61: 101031. https://doi.org/10.1016/j.jaging.2022.101031.

Stokes, J. E., and S. M. Moorman. 2020. "Sticks and Stones: Perceived Age Discrimination, Well-Being, and Health Over a 20-Year Period." *Research on Aging* 42, no. 3–4: 115–125. https://doi.org/10.1177/0164027519894875.

Streiner, D. L. 2002. "Breaking Up Is Hard to Do: The Heartbreak of Dichotomizing Continuous Data." *Canadian Journal of Psychiatry* 47, no. 3: 262–266.

Swift, H. J., D. Abrams, R. A. Lamont, and L. Drury. 2017. "The Risks of Ageism Model: How Ageism and Negative Attitudes Toward Age Can Be a Barrier to Active Aging." *Social Issues and Policy Review* 11, no. 1: 195–231. https://doi.org/10.1111/sipr.12031.

Tabassum, F., J. Mohan, and P. Smith. 2016. "Association of Volunteering With Mental Well-Being: A Lifecourse Analysis of a National Population-Based Longitudinal Study in the UK." *BMJ Open* 6, no. 8: e011327. https://doi.org/10.1136/bmjopen-2016-011327.

Tabuchi, M., T. Nakagawa, A. Miura, and Y. Gondo. 2015. "Generativity and Interaction Between the Old and Young: The Role of Perceived Respect and Perceived Rejection." *Gerontologist* 55, no. 4: 537–547. https://doi.org/10.1093/geront/gnt135.

Tan, J. J. X., M. W. Kraus, N. C. Carpenter, and N. E. Adler. 2020. "The Association Between Objective and Subjective Socioeconomic Status and Subjective Well-Being: A Meta-Analytic Review." *Psychological Bulletin* 146, no. 11: 970–1020.

De Tavernier, W., L. Naegele, and M. Hess. 2019. "A Critical Perspective on Ageism and Modernization Theory." *Social Inclusion* 7, no. 3: 54–57. https://doi.org/10.17645/si.v7i3.2371.

Turner, R. H. 2001. "Role theory." In *Handbook of Sociological Theory*, edited by J. H. Turner, 233–254. Springer. https://doi.org/10.1007/0-387-36274-6_12.

Vauclair, C. M., and M. Rudnev. 2019. "Modernization Theory." In *Encyclopedia of Gerontology and Population Aging*, edited by D. Gu and M. Dupre. Springer. https://doi.org/10.1007/978-3-319-69892-2_750-1.

Vauclair, C.-M., S. Marques, M. L. Lima, C. Bratt, H. J. Swift, and D. Abrams. 2015. "Subjective Social Status of Older People Across Countries: The Role of Modernization and Employment." *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 70B: 650–660.

Villar, F. 2012. "Successful Ageing and Development: The Contribution of Generativity in Older Age." *Ageing and Society* 32: 1087–1105. https://doi.org/10.1017/S0144686X11000973.

Villar, F., and R. Serrat. 2014. "A Field in Search of Concepts: The Relevance of Generativity to Understanding Intergenerational Relationships." *Journal of Intergenerational Relationships* 12, no. 4: 381–397. https://doi.org/10.1080/15350770.2014.960352.

Walker, T., T. Menneer, C. Leyshon, et al. 2020. "Determinants of Volunteering Within a Social Housing Community." *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations* 33: 1–13.

Warburton, J., and E. Jeppsson Grassman. 2011. "Variations in Older People's Social and Productive Ageing Activities Across Different Social Welfare Regimes." *International Journal of Social Welfare* 20, no. 2: 180–191. https://doi.org/10.1111/j.1468-2397.2009.00691.x.

Weziak-Bialowolska, D., R. Skiba, and P. Bialowolski. 2024. "Longitudinal Reciprocal Associations Between Volunteering, Health and Well-Being: Evidence for Middle-Aged and Older Adults in Europe." *European Journal of Public Health* 34, no. 3: 473–481. https://doi.org/10.1093/eurpub/ckae014.

Wilson, J. 2000. "Volunteering." *Annual Review of Sociology* 26, no. 1: 215–240.

Wilson, J., N. Mantovan, and R. M. Sauer. 2020. "The Economic Benefits of Volunteering and Social Class." *Social Science Research* 85: 102368.

Wirth, M., M. C. P. de Paula Couto, H. H. L. Fung, M. K. Pavlova, and K. Rothermund. 2025. "Normative Beliefs for Older Adults and Volunteering Intentions." *Gerontology* 71, no. 4: 321–335. https://doi.org/10.1159/000543917.

Wirth, M., M. C. de Paula Couto, P. Molina Sander, and K. Rothermund. 2025. "Social Normative Beliefs and Older Adults' Volunteering–A Daily Diary Study." *Current Research in Behavioral Sciences* 8: 100167. https://doi.org/10.1016/j.crbeha.2024.100167.

De Wit, A., H. Qu, and R. Bekkers. 2022. "The Health Advantage of Volunteering Is Larger for Older and Less Healthy Volunteers in Europe: A Mega-Analysis." *European Journal of Ageing* 19: 1189–1200. https://doi.org/10.1007/s10433-022-00691-5.

World Health Organization. 2015. *World Report on Ageing and Health*. World Health Organization. https://apps.who.int/iris/handle/10665/186463.

Yan, J., Y. Wang, E. Yang, et al. 2024. "Subjective Social Status, Health and Well-Being Among Older Adults in China and South Korea: A Cross-Sectional Analysis." *BMJ Open* 14, no. 4: e081872.

Zhang, J., and D. Centola. 2019. "Social Networks and Health: New Developments in Diffusion, Online and Offline." *Annual Review of Sociology* 45: 91–109. https://doi.org/10.1146/annurev-soc-073117-041421.