They are Doing Well, but is it by Doing Good? Pathways from Nonpolitical and Political Volunteering to Subjective Well-Being in Age Comparison

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Abstract

We investigated whether higher internal control beliefs (perceived control, political efficacy) and improved social relationships (lower loneliness, social support availability) mediated the associations between nonpolitical and political volunteering and subjective well-being (SWB; life satisfaction, emotional well-being). Moreover, we examined whether these effects differed between nonpolitical and political volunteering and across age groups. We conducted longitudinal multilevel regression analyses of data from the German Socio-Economic Panel (1985–2016) in younger (14–29, $n=7,547$), middle-aged (40–50, $n=6,437$), and older (65–75, $n=3,736$) adults (see preregistration at <https://osf.io/qk6mu>). Significant effects on SWB emerged mainly in older adults who reported higher life satisfaction on occasions with more frequent nonpolitical volunteering than usual but lower life satisfaction on occasions with more frequent political volunteering. The negative effect of political volunteering was mediated by higher loneliness. In younger and middle-aged adults, mixed effects of nonpolitical and political volunteering on the mediating variables and no significant effects on SWB emerged. We discuss methodological, contextual, and life-stage explanations of our findings.

Keywords Civic engagement · Life satisfaction and emotional well-being · Loneliness and social support · Perceived control · Political efficacy

1 Introduction

Does formal volunteering—unpaid voluntary work conducted in an organization to serve a common benefit (Wilson, 2012)—improve the subjective well-being (SWB) of volunteers? Research has substantiated this assumption (for reviews, see Anderson et al., 2014; Piliavin & Siegl, 2015; Wilson, 2012), particularly for older volunteers in organizations that provide a supportive environment (Musick & Wilson, 2003; Van Willigen, 2000; but see

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Bjälkebring et al., 2021). Among other things, improvements in internal control beliefs and social relationships have been discussed as likely pathways from volunteering to a higher SWB (Brown et al., 2012; Fried et al., 2004; Krause et al., 1992; Mellor et al., 2008; Müller et al., 2014; Musick & Wilson, 2003; Pilkington et al., 2012). However, empirical tests of these pathways in a longitudinal framework are scarce and have not addressed moderating factors, such as age (for an exception, see Müller et al., 2014) or type of volunteering.

To redress this gap, we used 32 waves (1985–2016) of data from the German Socio-Economic Panel (SOEP) to test whether formal nonpolitical and political volunteering enhanced SWB by fostering internal control beliefs and improving the social relationships of younger, middle-aged, and older individuals. We focused on formal and collective forms of nonpolitical and political volunteering (i.e., volunteering for organizations; Ekman & Amnå, 2012), because they may facilitate SWB in particular as they provide public visibility, structure, and embeddedness (Morrow-Howell, 2010; Piliavin & Siegl, 2015; Wilson, 2012). For each construct, we considered two specific indicators: life satisfaction and emotional well-being for SWB (Diener, 1994), general perceived control and political efficacy for internal control beliefs (Campbell et al., 1954; Rotter, 1966), and low loneliness and social support availability for social relationships (De Jong Gierveld, 1998; Siedlecki et al., 2014; Umberson & Montez, 2010).

1.1 Pathways from Volunteering to Subjective Well-Being

Subjective well-being is a hedonic concept of well-being (Diener, 1994) that includes a global cognitive evaluation of one's life (i.e., life satisfaction) and the experience of pleasant and absence of unpleasant emotions (i.e., emotional well-being). As volunteering sometimes involves confronting pain and suffering (e.g., during hospice volunteering; Claxton-Oldfield & Claxton-Oldfield, 2012), one may question why volunteering should facilitate SWB at all. Several researchers have proposed that this outcome takes place because volunteering enhances psychological and social resources (Fried et al., 2004; Morrow-Howell, 2010; Musick & Wilson, 2003; Piliavin & Siegl, 2015).

One line of research identified internal control beliefs and similar constructs (e.g., self-efficacy, Bandura, 1977; and mastery, Pearlin et al., 1981) as potential explanations for the link between volunteering and SWB (Brown et al., 2012; Fried et al., 2004; Mellor et al., 2008; Müller et al., 2014). Internal control beliefs refer to the beliefs that outcomes are contingent upon one's own action rather than upon external circumstances (Rotter, 1966). Such beliefs are key to well-being (Thoits, 2010). As a self-determining, challenging, and productive activity that facilitates organizational and rhetorical skills, volunteering may foster these beliefs (Piliavin & Siegl, 2015; Son & Wilson, 2012; Verba et al., 1995). Indeed, in two cross-sectional studies of Australian adults, the association between volunteering and higher SWB was mediated by perceived control (Mellor et al., 2008) and self-efficacy (Brown et al., 2012). However, two longitudinal studies yielded mixed results regarding mediation: Müller et al. (2014) found that self-efficacy mediated the link between volunteering and SWB among adults aged 55+ in Germany, whereas Musick and Wilson (2003) did not find mastery to mediate the link between volunteering and lower depression in a U.S. sample of older adults.

A more specific control belief possibly related to volunteering in particular is one's perception of their ability to influence societal and political processes (i.e., internal political efficacy; Campbell et al., 1954). If volunteers perceive their actions as benefiting a common cause, they might become convinced that they can influence society and politics,

which may in turn contribute to higher SWB (Pirralha, 2017; Šerek et al., 2017). In a longitudinal sample of Dutch adults, a broad measure of political activism was related to higher political efficacy, but political efficacy was only weakly related to life satisfaction (Pirralha, 2017). Political activism—but neither campaigning for a political candidate nor volunteering—predicted higher political efficacy in a longitudinal sample of Czech adolescents (Šerek et al., 2017). Participation in school councils and political youth organizations was related to higher political efficacy in a cross-sectional sample of pupils in 10 European and South American countries (Schulz, 2005). We are not aware of any studies that addressed the link between volunteering and political efficacy in older adults or in age comparison.

Another line of research has emphasized that volunteering fosters SWB because it can improve social relationships (Fried et al., 2004; Musick & Wilson, 2003; Pilkington et al., 2012). Positive social relationships may be reflected in the availability of social support and the absence of feelings of loneliness, which are very proximal predictors of SWB (Park et al., 2020; Siedlecki et al., 2014). Perceived social support refers to the perception that others provided or can provide help and comfort if necessary (Siedlecki et al., 2014), whereas loneliness refers to the discrepancy between the perceived and the desired quality and quantity of social relationships (Wenger et al., 1996). Formal volunteering may promote social support and decrease feelings of loneliness because it takes place in an organizational context with like-minded others (i.e., shared interests and values) and thus increases one's social network and promotes feelings of belongingness and new friendships (Rook & Sorkin, 2003; Van Ingen & Kalmijn, 2010).

This social-relationships pathway has not been subject to extensive study. In a cross-sectional sample of Australian adults, perceived social support mediated the association between volunteering and higher SWB (Pilkington et al., 2012). Other empirical studies did not test mediation but only the effects of volunteering on social support or loneliness as outcomes. In a Dutch sample, entering a voluntary association (only among adults aged 55+) and starting volunteering were associated with higher perceived social support (Van Ingen & Kalmijn, 2010). Two randomized trials with older adults in the United States yielded conflicting results: Older volunteers in public elementary schools reported a more positive change in social support compared to a control group (Fried et al., 2004), whereas volunteering in a foster grandparent program did not predict lower loneliness (Rook & Sorkin, 2003). Finally, in a longitudinal study with older adults in the United States, volunteering did predict decreases in loneliness among widowed participants (Carr et al., 2018). In sum, in spite of indications that volunteering improves social relationships—particularly in older adults—their role in the link between volunteering and SWB remains underexplored.

1.2 Age Differences

The benefits of volunteering for SWB have been mainly investigated and found in older adults (cf. Anderson et al., 2014; Piliavin & Siegl, 2015). Moreover, longitudinal U.S. studies that explicitly tested for age differences found more positive effects of volunteering on SWB in older than in younger adults or significant effects only in older adults (Li & Ferraro, 2006; Musick & Wilson, 2003; Van Willigen, 2000). A cross-sectional German study yielded similar findings (Pavlova & Silbereisen, 2012).

Why might volunteering benefit older adults more? Declining involvement with family as well as social and work roles (e.g., due to grown-up children, death of family members/friends, and retirement) may challenge older adults' potential to realize their generative needs (i.e., contributing to the welfare of future generations; Erikson, 1950) by engaging in

socially embedded, meaningful, and productive activities (Piliavin & Siegl, 2015). According to Baltes's (1997) selection–optimization–compensation model, compensation for age-related losses is central to adaptive development. As a productive and (pro)social activity, volunteering might compensate for age-related declines in internal control beliefs and for shrinking social networks (Cudjoe et al., 2020; Lachman et al., 2011; Morrow-Howell, 2010; Nicholson, 2012; Pavlova & Silbereisen, 2012, 2014; Piliavin & Siegl, 2015; Rothermund & Brandstädter, 2003). Consequently, potential age differences in the effects on SWB may be explained by greater benefits to internal control beliefs and social relationships in older than in younger volunteers.

Minimal empirical evidence is available to judge the validity of this assumption. Two longitudinal studies did find stronger effects of volunteering on self-efficacy among adults aged 55–84 than among adults aged 45–54 (Müller et al., 2014) and significant effects of volunteering on perceived social support only in older but not in younger adults (Van Ingen & Kalmijn, 2010). However, people volunteer in different types of organizations (Morrow-Howell, 2010), and not all types of volunteering are equally beneficial in old age (Musick & Wilson, 2003; Piliavin & Siegl, 2015). In this study, we focused on the distinction between nonpolitical and political volunteering, which has featured prominently in political science (Theiss-Morse & Hibbing, 2005; Verba et al., 1995).

1.3 Nonpolitical and Political Volunteering

Nonpolitical volunteering involves helping others or otherwise contributing to the common benefit immediately (e.g., as a volunteer in a homeless or animal shelter), whereas political volunteering is generally directed at policy change (e.g., campaigning for a politician or political activism; Theiss-Morse & Hibbing, 2005; Verba et al., 1995). Political volunteering often involves conflicts, unachieved targets, and delayed results (Theiss-Morse & Hibbing, 2005) and is frequently driven by negative emotions that arise in response to a perceived disadvantage or injustice (Van Zomeren, 2013). In contrast to political organizations, nonpolitical organizations emphasize harmony, consensus, and appreciation, and the results of direct helping may be more tangible than those of political volunteering (Theiss-Morse & Hibbing, 2005). Hence, it is no wonder that political volunteering, which may entail less positive (social) experiences and more frustrated goals, is less attractive than nonpolitical volunteering (Eliasoph, 2013; Pavlova et al., 2021).

What about the potential benefits of nonpolitical and political volunteering for older adults? Both directly helping and working toward policy change may help volunteers express generative concerns (Erikson, 1950; McAdams & de St. Aubin, 1992) and cast older adults in social and productive roles. However, socioemotional selectivity theory posits that when time is perceived as limited, such as in old age, the need for immediate emotional gratification and harmonious social relations increases (Carstensen et al., 1999). Thus, older adults in particular might be bothered by political volunteering: It may interfere with internal control beliefs because it is often ineffective, and may hinder social relationships because it is conflict-ridden (Serrat et al., 2021; Theiss-Morse & Hibbing, 2005). Via these pathways, political volunteering might even impair older adults' SWB. In contrast, younger adults may benefit more from political volunteering than older adults do because they are more future-oriented (Carstensen et al., 1999) and may anticipate benefits of political volunteering for their personal development (Theiss-Morse & Hibbing, 2005). Thus, the stronger positive effects of volunteering on older adults' perceived control, social support, and SWB documented in prior research (Li & Ferraro, 2006; Müller et al., 2014;

Musick & Wilson, 2003; Pavlova & Silbereisen, 2012; Van Ingen & Kalmijn, 2010; Van Willigen, 2000) may pertain only to nonpolitical volunteering.

Many empirical studies have investigated the (well-being) outcomes of formal nonpolitical volunteering, but research on the outcomes of formal political volunteering remains underdeveloped (Serrat et al., 2020). In longitudinal adult samples from the Netherlands (Pirralha, 2017) and Germany (Pirralha, 2018), political participation did not predict SWB. In a cross-sectional sample of German adults (Pavlova et al., 2021), participants reported lower quality of experience for political than for nonpolitical participation, including lower enjoyment, lower perceived effectiveness, and less positive social interactions. In life story interviews, older members of political organizations in Spain reported experiencing political defeats, conflicts with other members, feelings of loneliness, and detachment from their social network as negative experiences of political participation (Serrat et al., 2021). In contrast, in focus group interviews, youth activists in the United Kingdom reported perceiving their political participation as fruitful, helping them learn from conflicts and rejections, and experiencing strong bonds among each other (Montague & Eiroa-Orosa, 2018). To sum up, the extant quantitative research suggests that political volunteering is generally less beneficial than nonpolitical volunteering, whereas qualitative studies indicate that this finding may be especially the case in older adults.

1.4 The Present Study

Some prior studies, most of them cross-sectional, did find internal control beliefs or social relationships to mediate the link between volunteering and SWB (Brown et al., 2012; Mellor et al., 2008; Müller et al., 2014; Pilkington et al., 2012), but explored age differences only once (and not across the entire adult life span; Müller et al., 2014) and did not differentiate between types of volunteering. In this study, we took a new perspective of the pathways from volunteering to SWB by considering both age differences and the distinctions between nonpolitical and political volunteering. We hypothesized that more frequent volunteering is associated with increases in general perceived control, political efficacy, and social support availability as well as with decreases in loneliness (Hypothesis 1a) and with increases in SWB (Hypothesis 1b). Moreover, we expected perceived control, political efficacy, lower loneliness, and social support availability to mediate the positive association between volunteering and SWB (Hypothesis 1c). Furthermore, we assumed that the positive effect of nonpolitical volunteering on SWB is stronger in older than in younger and middle-aged adults (Hypothesis 2a) and that these age differences are explained by the more favorable effects of nonpolitical volunteering on the mediating variables in older than in younger and middle-aged adults (Hypothesis 2b). Conversely, we expected that the older the participants were, the more negative the effects of political volunteering on SWB would become (Hypothesis 2c) and that these age differences were explained by political volunteering's less favorable effects on the mediating variables with increasing age (Hypothesis 2d).

To test these hypotheses (see preregistration at <https://osf.io/qk6mu>), we used large-scale German panel data. Longitudinal studies on volunteering and well-being mostly employed a cross-lagged panel model, which investigates individual time-specific deviations from time-specific grand means (i.e., the means of all respondents) and thus includes comparisons among individuals to estimate effects (Hamaker et al., 2015). Such interindividual differences may result from the stability of trait-like constructs (e.g., the trait components of SWB; Diener, 1994) that may explain interindividual differences in activities (e.g.,

why some individuals volunteer more frequently than others) and therefore point to selection effects. By contrast, longitudinal multilevel models with observations nested within participants (Wang & Maxwell, 2015) separate intraindividual change (within-person level) from interindividual differences (between-person level; Hamaker et al., 2015). Associations at the within-person level represent how well-being changes within an individual if they volunteer more frequently (cf. Bjälkebring et al., 2021), are controlled for unobserved time-invariant variables, and are less likely to be confounded by selection effects because interindividual differences are modeled at a separate level. As we were interested in intraindividual change, we employed multilevel modeling and tested all hypotheses at the within-person level; nevertheless, we also investigated between-person associations to inspect potential selection effects.

2 Methods

2.1 Sample and Procedure

The SOEP is an ongoing annual panel survey of adults (16+) residing in private households in Germany. It started in 1984 with the West German main sample and was updated with several refreshment samples in subsequent years (Wagner et al., 2007). We used data from 1985 to 2016 (Socio-Economic Panel, 2018). Annual household drop-out rates of the West German main sample due to refusal to participate ranged from 5.9 in 1997 to 13.4% in 2015 (Kroh et al., 2018).

We divided participants into three contrasting age groups that may attach different purposes and benefits to volunteering: for 14–29 year-olds (younger adults),¹ volunteering may be a facilitator of labor market entry (Pavlova & Silbereisen, 2014; Piliavin & Siegl, 2015); for 40–50 year-olds (middle-aged adults), volunteering may complement family and work roles (Van Willigen, 2000); for 65–75 year-olds (older adults), volunteering may compensate for reduced work and family commitments following retirement (Morrow-Howell, 2010; Pavlova & Silbereisen, 2014). These age groups were based on participant age in 1999 (about the middle of the observation period; age groups were defined irrespective of whether participants took part in the survey in 1999) and time-invariant: participants remained in the assigned age groups, even if their age on a given occasion was below or exceeded the initial age limit. Few participants would actually reach an age of another group during the observation period.

As this was a secondary data analysis, we used such indicators of the key constructs that were available in the dataset. For descriptive statistics, see Table 1 (key study variables) and Supplement A (all variables).

¹ Although only household members aged 16+ were eligible to be interviewed, we included participants who were 14/15 years old in 1999 into the youngest age group to avoid losing their observations, which were collected after they reached the age of 16 (after 1999).

Table 1 Descriptive statistics for the key study variables

Variables (range)	Age 14–29				Age 40–50				Age 65–75			
	<i>M</i> (<i>SD</i>) or %	<i>n</i> persons	<i>k</i> observations	observations	<i>M</i> (<i>SD</i>) or %	<i>n</i> persons	<i>k</i> observations	observations	<i>M</i> (<i>SD</i>) or %	<i>n</i> persons	<i>k</i> observations	observations
Nonpolitical volunteering (1–5)	1.5 (0.9)	6,923	40,163		1.6 (1.0)	5,814	48,451		1.4 (0.9)	3,348	25,400	
Political volunteering (1–5)	1.1 (0.4)	6,923	40,150		1.2 (0.5)	5,807	48,360		1.2 (0.5)	3,348	25,380	
Life satisfaction (0–10)	7.1 (1.7)	7,520	65,659		6.8 (1.9)	6,431	79,623		7.0 (1.9)	3,734	42,233	
Emotional well-being ^a (1–5)	3.6 (0.7)	3,907	22,620		3.5 (0.7)	3,016	20,498		3.5 (0.7)	1,394	7,756	
Perceived control ^a (0–100)	63.2 (14.8)	5,077	10,490		61.1 (16.0)	3,928	9,677		59.9 (16.4)	2,038	4,256	
Political efficacy (0–100)	44.2 (26.3)	5,057	10,427		43.0 (26.5)	3,921	9,634		41.2 (27.8)	2,031	4,194	
Loneliness (1–5)	1.8 (0.8)	4,683	12,036		1.8 (0.9)	4,092	15,990		1.8 (1.0)	2,200	8,314	
Social support availability in dire situations (0/1)	96.5%	6,033	12,627		96.2%	5,092	14,069		96.5%	2,811	7,185	

Summary statistics across persons and observations are shown. *n* = number of valid cases. *k* = number of valid observations

^a Raw mean score of the indicators of emotional well-being and perceived control, respectively

2.2 Measures

2.2.1 Volunteering

At least biennially, participants reported on their leisure activities ('Which of the following activities do you take part in during your free time?'), including nonpolitical volunteering ('Volunteer work in clubs, associations or social services') and political volunteering ('Involvement in a citizens' initiative, political party, local government'). At some waves, a 5-point rating scale was used (1 = *never*; 2 = *less often*; 3 = *at least once per month*; 4 = *at least once per week*; 5 = *daily*); a 4-point scale (1 = *never*; 2 = *less often*; 3 = *at least once a month*; 4 = *at least once a week*) was administered at other waves. We merged the categories *at least once per week* and *daily* (endorsed by very few participants) of the 5-point scale to obtain a uniform 4-point scale.

The validity of these items is supported by a comparison to the German Survey on Volunteering (FWS; Simonson et al., 2017). In the SOEP, 38.4% of participants reported some nonpolitical or political volunteering in 2015; the FWS, which used many more differentiated items, found a comparable percentage in 2014 (43.2%). Moreover, data from the FWS indicated that people volunteer nearly thrice as often for social as for political organizations (Simonson et al., 2017), which corresponds to the proportion between the rates of nonpolitical and political volunteering in the SOEP.

2.2.2 Subjective Well-Being

Life satisfaction was assessed annually with one item ('How satisfied are you with your life, all things considered?' 0 = *completely dissatisfied*; 10 = *completely satisfied*). This item correlated at 0.64 with an established scale of life satisfaction (Cheung & Lucas, 2014). Emotional well-being was assessed annually since 2007, with four items on the frequency of being angry, worried, happy, and sad in the past four weeks (1 = *very rarely*; 5 = *very often*; $\alpha = 0.65\text{--}0.69$ across waves; for previous use, see Kunzmann et al., 2013).

2.2.3 Mediating Variables

Internal control beliefs were measured in 1999, 2005, 2010, and 2015 with the Locus of Control Scale by Nolte et al. (1997). General perceived control (cf. Rotter, 1966) was measured with seven items from the scale that assessed external (e.g., 'The opportunities that I have in life are determined by the social conditions,' inverse coded) and internal (e.g., 'How my life goes depends on me') control beliefs regarding one's own life ($\alpha = 0.68\text{--}0.71$ across waves). Internal political efficacy (cf. Campbell et al., 1954) was represented by another item from this scale ('If one is socially or politically active, one can have an effect on social conditions'). In 1999, a 4-point rating scale (1 = *agree completely*; 4 = *disagree completely*) was used, whereas in 2005, 2010, and 2015, a 7-point rating scale was used (1 = *disagree completely*; 7 = *agree completely*). To adjust for different rating scales, we converted the scores of all control items into the percent of maximum possible scores (range 0–100; Cohen et al., 1999). To investigate the validity of our measures, we calculated the correlations of the raw scores with each other and with similar constructs. To take the 2015 measurement as an example: The mean score of perceived control correlated at 0.02 with internal political efficacy, evincing their discriminant validity. Furthermore,

supporting its convergent validity, perceived control correlated at 0.36 with single items on self-esteem and flourishing (i.e., feeling that one's activities are useful) in 2015 and at -0.26 with a single item on feeling overwhelmed by things in 2013. In turn, in 2015, internal political efficacy correlated at 0.15 with nonpolitical and political volunteering and at 0.19 with a single item on political interest, which supported its convergent validity.

Seven times between 1992 and 2013, loneliness was assessed with one item from the anomie scale (Duttenhöfer & Schröder, 1994): 'I often feel lonely' (1=*disagree completely*; 4=*agree completely*). Social support availability in dire situations was assessed with one item ('If you were to need long-term care [for example, in the case of a bad accident], who would you ask for help?' 0=*no one*; 1=*at least one person named*) administered six times between 1991 and 2016 (Duttenhöfer & Schröder, 1994). Discriminant validity of these measures was confirmed by their being correlated at -0.07 in 1996 (i.e., the only wave when they were assessed concurrently). Regarding convergent validity, in 2013, loneliness correlated at 0.49 with a mean score of three items on social isolation (e.g., feeling isolated), whereas in 2016, social support availability in dire situations correlated at 0.12 with the number of close personal acquaintances (e.g., people whom one can always tell the truth).

2.2.4 Control Variables

Confounders are variables that predict both the predictors and the outcomes, which may evince a spurious relationship as a consequence. A usual approach to remove such spurious relationships in regression analyses is to include confounders as covariates in regression models (Rohrer, 2018). Therefore, we controlled for variables that are potential confounders of the effects of volunteering on the mediators and on SWB: sociodemographics (e.g., education, income, employment status), health (e.g., subjective health, hospital stays in the last year), and life events (Anderson et al., 2014; Piliavin & Siegl, 2015). Furthermore, because volunteering is supposed to promote well-being over and above the effects of informal social activities—which are thought to be less meaningful, productive, self-determined, or structured than volunteering (Musick & Wilson, 2003; Piliavin & Siegl, 2015; Son & Wilson, 2012; Van Ingen & Kalmijn, 2010)—we included other leisure activities as control variables (e.g., frequency of informal social interactions, going out, informal helping, doing sports). For the full set of control variables, see Supplements A, B, and C; for the results from the models without control variables, see Supplementary Analyses.

2.3 Statistical Analyses

We conducted two-level regression analyses in MPlus 8.2. Time-varying predictors and covariates were entered at the within-person level and, if they were continuous, centered on individual means across all observations. Within-person variables were modeled concurrently because we assumed that the effects of occasion-specific deviations in the frequency of volunteering on well-being are unlikely to last until the next year. Time-invariant variables (e.g., gender) or individual means of continuous time-varying variables (grand-mean centered) were entered as between-person indicators (for the exact list of variables at both levels, see Supplements B and C).

First, we regressed the presumed mediators (perceived control, political efficacy, loneliness, and social support availability) on volunteering and covariates (first stage of mediation, Hypothesis 1a). Second, we regressed SWB indicators on volunteering (direct

effects), the mediating variables (second stage of mediation), and covariates. In the SOEP, perceived control and political efficacy were never assessed concurrently with loneliness and social support availability. Therefore, we set up separate models that included either perceived control and political efficacy or loneliness and social support availability as predictors of SWB. To test for the total effects of volunteering on SWB (Hypothesis 1b) and for mediation (Hypothesis 1c), we used the product of coefficients approach (MacKinnon et al., 2002): we computed indirect effects as the product of the unstandardized regression coefficients from the first and second stage of mediation ($B_{\text{mediator on predictor}} \times B_{\text{outcome on mediator}}$) and total effects as the sum of indirect and direct effects.

We used Bayesian estimation with noninformative priors because maximum likelihood estimation was computationally infeasible with our large sample size (Muthén & Asparouhov, 2012). We tested all regression coefficients for significance using asymmetric Bayesian credibility intervals, which adequately represent the distribution of products of coefficients (Van de Schoot et al., 2014). We conducted analyses separately in each age group as multiple group analysis was not available with multilevel analysis and Bayesian estimation. Whenever an effect was significant (at $p < 0.05$) in at least one age group, we used overlapping credibility intervals with a correction suggested by Knol et al. (2011) to test for age differences at $p < 0.01$ (Hypotheses 2a, 2b, 2c, and 2d).

Longitudinal attrition and missingness by design (i.e., irregular or infrequent measurement of variables) resulted in large amounts of missing data (see Table 1). The Bayes estimator is a full information estimator that uses all available data without imputing missing values (Muthén & Asparouhov, 2012). That is, effective sample size for each estimate is not inflated, but no information is lost (as it would have been with listwise deletion). To facilitate the estimation of missing values, we used two annually measured variables as missing data covariates that were likely predictors of dropout: income and satisfaction with health from the previous wave at the within-person level.

We modeled general perceived control and emotional well-being as latent variables at both levels. To adjust for alternating rating scales, we regressed each within-person manifest indicator of perceived control on a binary wave indicator. The measurement model fit was acceptable: for emotional well-being, $\chi^2(4) = 327.2$, $p < 0.001$, CFI = 0.993, RMSEA = 0.027, SRMR_{within} = 0.012, SRMR_{between} = 0.013; for perceived control, $\chi^2(28) = 2223.0$, $p < 0.001$, CFI = 0.944, RMSEA = 0.040, SRMR_{within} = 0.024, SRMR_{between} = 0.043. Furthermore, we tested for measurement invariance across age groups. According to the suggestion by Cheung and Rensvold (2002) that a Δ CFI less than 0.01 supports the more restricted model, we found weak measurement invariance for both constructs (i.e., factor loadings did not significantly differ across age groups), so regression coefficients were comparable: for emotional well-being, $\Delta\chi^2(16) = 136.4$, $p < 0.001$, Δ CFI = 0.005, *ns*; for perceived control, $\Delta\chi^2(28) = 153.2$, $p < 0.001$, Δ CFI = 0.006, *ns*.

3 Results

3.1 Within-Person Associations

Within-person associations indicate whether participants had higher (or lower) values on the outcome variables than usual (i.e., compared to their individual means across observations) on occasions when they reported more (or less) frequent volunteering than usual. As confounders such as income were controlled for, these effects of volunteering could not be

Table 2 Within-person associations of volunteering with the mediating variables

Predictors	Age 14–29	Age 40–50	Age 65–75
<i>DV: perceived control_t</i>			
Nonpolitical volunteering _t	– .002	.026	.021
Political volunteering _t	– .039*	– .082**	– .037
<i>DV: political efficacy_t</i>			
Nonpolitical volunteering _t	.017	.027	.005
Political volunteering _t	.058**	.052**	.031
<i>DV: loneliness_t</i>			
Nonpolitical volunteering _t	0.5%	2.9%	– 3.7%
Political volunteering _t	2.7%	1.4%	9.2%**
<i>DV: social support availability in dire situations_t</i>			
Nonpolitical volunteering _t	– 25.1%*	3.0%	9.9%
Political volunteering _t	0.2%	4.0%	– 22.9%

Cells represent effect sizes from fully adjusted models. As effect sizes, we report standardized linear regression coefficients for continuous outcomes (based on within-person *SDs*) and the relative difference of predicted probabilities, in %, for one *SD* difference in volunteering for ordinal/binary outcomes

* $p < .05$. ** $p < .01$

attributed to the between-person differences or within-person fluctuations in the confounders (i.e., their values were held constant across participants and observations).

3.1.1 First and Second Stage of Mediation

Table 2 gives effect sizes for the associations between volunteering and the mediators (for full regression tables, see Supplement B). Figure 1 shows the paths from volunteering to SWB via internal control beliefs and social relationships. We did not observe any significant within-person associations between nonpolitical volunteering and perceived control, political efficacy, and loneliness (see Table 2 and Fig. 1). In younger adults, the probability of perceiving social support as available in dire situations was reduced by one forth when they reported more frequent nonpolitical volunteering than usual (for the calculation of effect sizes, see Supplement E). Several significant within-person associations of political volunteering with the mediators emerged, but they were small. Specifically, in younger and middle-aged but not in older adults, more frequent political volunteering than usual was significantly associated with higher political efficacy but also with lower perceived control. In older adults, more frequent political volunteering than usual was significantly related to higher loneliness. In all, Hypothesis 1a was supported only for the link between political volunteering and higher political efficacy in younger and middle-aged adults; other significant associations went in an unfavorable direction.

Considering the within-person associations between the mediators and SWB (see Fig. 1; for regression tables, see Supplement C), we found that higher political efficacy than usual was significantly associated with higher emotional well-being, but only in younger adults ($\beta = 0.061$). Across age groups, political efficacy was significantly associated with higher life satisfaction, but effect sizes were small (β s from 0.042 to 0.065). Effect sizes for the significant associations with SWB appeared to be larger for perceived control (β s from 0.187 to 0.436), loneliness (β s from – 0.143 to – 0.363), and social

Fig. 1 The path diagrams show within-person paths from volunteering to subjective well-being via internal control beliefs (left column) and social relationships (right column) in different age groups. Numbers represent unstandardized linear regression coefficients from fully adjusted models. Coefficients in **bold** were significant at $p < .05$

support availability (β s from 0.110 to 0.136). Surprisingly, in older adults, social support availability was related to significantly lower emotional well-being ($\beta = -0.228$).

3.1.2 Total Effects on SWB

Table 3 provides effect sizes for the direct, indirect, and total effects of volunteering on SWB. In younger and middle-aged adults, we observed no significant within-person associations between nonpolitical or political volunteering and SWB (i.e., total effects in Table 3). In older adults, more frequent nonpolitical volunteering than usual was significantly related to higher life satisfaction, whereas more frequent political volunteering than usual was significantly associated with lower life satisfaction. Hence, Hypothesis 1b was supported only for the link between nonpolitical volunteering and life satisfaction in older adults.

Table 3 Direct, indirect, and total within-person effects of nonpolitical and political volunteering on SWB

Effects of volunteering t	Life satisfaction t			Emotional well-being t		
	Age 14–29	Age 40–50	Age 65–75	Age 14–29	Age 40–50	Age 65–75
Via internal control beliefs						
Direct	.007/ .008	– .006/ .010	.014/ – .008	.003/ .007	– .009/ .022	.018/ .019
Via perceived control t	– .001/ – .009*	.006/ – .019**	.004/ – .007	– .001/ – .014*	.010/ – .030**	.009/ – .016
Via political efficacy t	.001/ .004**	.001/ .003**	.000/ .001	.001/ .003**	.000/ .000	.000/ .000
Total	.008/ .003	.001/ – .006	.018**/ – .014*	.003/ – .003	.001/ – .007	.027/ .003
Via social relationships						
Direct	.015*/ .005	.002/ – .007	.013/ – .003	.017/ .001	– .002/ – .008	.027/ .003
Via loneliness t	– .001/ – .003	– .002/ – .001	.003/ – .007**	– .001/ – .005	– .004/ – .002	.007/ – .018**
Via social support availability t	– .011*/ .000	.001/ .002	.001/ – .002	– .013*/ .000	.001/ .001	– .008/ .017
Total	.004/ .003	.002/ – .006	.017**/ – .013*	.002/ – .004	– .005/ – .008	.026/ .004

Cells represent standardized linear regression effects (based on within-person *SDs*) of nonpolitical/political volunteering from fully adjusted models. Indirect effects via perceived control and political efficacy, and via loneliness and social support availability were tested in separate models

* $p < .05$. ** $p < .01$

3.1.3 Indirect Effects on SWB

We found no significant mediation of the within-person association between nonpolitical volunteering and higher life satisfaction in older adults (i.e., indirect effects in Table 3). The association between political volunteering and lower life satisfaction in older adults was mediated by higher loneliness on occasions when older adults reported more frequent political volunteering than usual. This indirect effect was also significant for emotional well-being. Other significant indirect effects went in opposite directions or were cancelled out by direct effects: for instance, in younger and middle-aged adults, more frequent political volunteering than usual was related to higher SWB via higher political efficacy but to lower SWB via lower perceived control. Taken together, these findings yielded very limited support for our mediation hypothesis (Hypothesis 1c), which assumed positive total effects of volunteering on SWB in the first place.

3.1.4 Age Differences

The pattern of significant within-person associations of nonpolitical and political volunteering with life satisfaction was in the expected direction in older adults. Moreover,

compared to the total effects of nonpolitical and political volunteering on life satisfaction in older adults, direct effects were reduced in size—particularly for political volunteering—and not significant (see Table 3). However, we found no significant age differences in the associations of nonpolitical and political volunteering with internal control beliefs, social relationships, and SWB (at $p < 0.01$). Thus, none of our hypotheses regarding age differences (Hypotheses 2a, 2b, 2c, 2d) was supported.

3.2 Between-Person Associations

Between-person associations indicate whether participants with a higher average frequency of volunteering reported higher average internal control beliefs and SWB and better average social relationships than their less engaged counterparts. In younger adults, a higher average frequency of nonpolitical volunteering was associated with higher average perceived control ($\beta = 0.055$), higher average political efficacy ($\beta = 0.087$), and an 11.1% higher probability of social support availability across observations (see Supplements B and C). Across age groups, a higher average frequency of nonpolitical volunteering was related to higher average life satisfaction (β s from 0.050 to 0.088) across observations. Moreover, a higher average frequency of political volunteering was associated with higher average political efficacy across observations (β s from 0.215 to 0.291), but associations with average perceived control (β s from -0.020 to -0.099), loneliness (a 2.6–12.0% higher probability of feeling lonely often), and emotional well-being (β s from -0.057 to -0.105) across observations were mostly in an unfavorable direction.

3.3 Supplementary Analyses

We analyzed unadjusted models to inspect whether any initially significant within-person associations were accounted for by control variables (see Supplements B and C). In younger and middle-aged adults, results were similar to those of the fully adjusted models: There were no significant total effects on life satisfaction or emotional well-being. In older adults, more frequent nonpolitical volunteering than usual was significantly related to lower loneliness (a 10.8% lower probability of feeling lonely often, $p < 0.01$) and to higher emotional well-being ($\beta = 0.072$, $p < 0.01$); further, it was more strongly related to higher life satisfaction than in adjusted models ($\beta = 0.062$, $p < 0.01$). Moreover, in unadjusted models, associations between nonpolitical volunteering and loneliness, emotional well-being, and life satisfaction were significantly ($p < 0.01$) more beneficial in older than in younger and middle-aged adults. By contrast, more frequent political volunteering than usual was no longer associated with higher loneliness (a 6.0% higher probability of feeling lonely often, *ns*) and lower life satisfaction ($\beta = 0.012$, *ns*) in older adults.

An inspection of separate models with (a) sociodemographics, (b) health and life events, and (c) leisure activities as control variables indicated that all categories of control variables, but especially other leisure activities, reduced the beneficial effects of nonpolitical volunteering in older adults. It is noteworthy that for some leisure activities, we found more and apparently larger significant effects on the mediating and outcome variables than we found for nonpolitical volunteering. Specifically, in older adults, more frequent informal helping than usual was significantly associated with lower loneliness, higher life satisfaction, and higher emotional well-being (see Supplements B and C). Additionally, across age groups, more frequent informal socializing than usual was significantly related to higher perceived control, lower loneliness, and higher life satisfaction. With regard to political

volunteering, its effects on life satisfaction in older adults became significantly negative only when all control variables were included, which indicated a suppressor effect.

Finally, at the within-person level, we modeled volunteering with a time lag to test for the effects of volunteering on the outcomes in the next year. We found virtually no significant lagged effects.

4 Discussion

In this study, we investigated whether changes in internal control beliefs (i.e., general perceived control and internal political efficacy) and social relationships (i.e., absence of loneliness and social support availability) mediated the link between volunteering and SWB. Furthermore, we distinguished nonpolitical from political volunteering and compared effects across age groups. To receive estimates that represent intraindividual change, we looked into within-person associations between volunteering, the mediators, and SWB that showed whether on occasions when individuals reported more frequent volunteering than usual they reported better outcomes than usual. We found limited support for the idea that volunteering contributes to higher SWB via higher internal control beliefs and improved social relationships. Instead, only few and weak positive within-person associations of volunteering with any of these outcomes emerged.

Constructs that were not assessed in the SOEP—such as a sense of mattering or meaning in life (Klein, 2017; Piliavin & Siegl, 2007) or everyday social support (Fried et al., 2004; Pilkington et al., 2012)—may be more proximal outcomes of volunteering. Nevertheless, in contrast to political efficacy, particularly mattering and meaning in life should be strongly related to SWB (Piliavin & Siegl, 2007; Thoits & Hewitt, 2001), which should result in stronger total effects on SWB than we found. Volunteering might have strong positive effects on SWB via mattering or meaning in life (Klein, 2017; Piliavin & Siegl, 2007, 2015; Thoits & Hewitt, 2001) that are cancelled out by negative effects on SWB via other pathways (e.g., feeling stressed; Claxton-Oldfield & Claxton-Oldfield, 2012; Son & Wilson, 2012; Van Willigen, 2000). Alternatively, the mattering and meaning-making function of volunteering may be limited in Germany because in countries with high state welfare spending, volunteers may not feel particularly needed (Hansen et al., 2018). Instead, in Germany, older adults might benefit from nonpolitical volunteering because of the harmonious and pleasant socializing opportunities it provides (Theiss-Morse & Hibbing, 2005), which may satisfy their need for immediate emotional and interpersonal comfort (Carstensen et al., 1999). Indeed, our adjusted models indicated that the limited well-being benefits of volunteering in older adults could to some extent be explained by increased social and physical activities (cf. Musick & Wilson, 2003). However, in contrast to meaning-making and mattering, these benefits are less specific to volunteering. Moreover, our findings suggest that interactions with close social partners—such as family members and friends—may have stronger effects than volunteering on outcomes such as SWB, general perceived control, and loneliness.

It is also conceivable that volunteering does not yield noteworthy effects across outcomes when actual intraindividual change is considered (cf. Bjälkebring et al., 2021). The positive associations between volunteering and SWB found in prior longitudinal research may partly represent selection effects, because cross-lagged panel models confound intraindividual change with interindividual differences (Hamaker et al., 2015; Wang & Maxwell, 2015). Indeed, the between-person associations we found—albeit

small in size—suggest that more satisfied individuals self-select particularly into non-political volunteering (cf. Bjälkebring et al., 2021; Hansen et al., 2018; Son & Wilson, 2012; Thoits & Hewitt, 2001).

As expected, political volunteering in particular had a very small but significant negative effect on life satisfaction in older adults, which was mediated by higher loneliness. Notably, these associations emerged only when confounders at both levels were controlled for, which might indicate that the confounders act as suppressors. Possibly, the same conditions that enable political volunteering in older adults (e.g., episodes of better health and more social interaction) buffer against negative effects on SWB, resulting in such suppressor effects. Nevertheless, these findings support the idea that political volunteering may run contrary to older adults' social needs (Carstensen et al., 1999; Theiss-Morse & Hibbing, 2005) because of the conflicts inherent to political volunteering and estrangement from one's close social ties (Serrat et al., 2021). However, the negative effects of political volunteering may also be specific to Germany. For instance, prior research found that adults from the former East Germany perceived political participation much less favorably than nonpolitical participation (Pavlova et al., 2021). Such widespread distrust toward political participation may alienate political volunteers from others. In some other countries, political participation may more likely serve as an opportunity to strengthen existing social ties, particularly if friends, relatives, and neighbors encourage political volunteering or volunteering for political organizations too (Salamon & Sokolowski, 2001).

In addition to the small negative effects of political participation on loneliness and life satisfaction in older adults, political volunteering was associated with lower general perceived control in younger and middle-aged adults. In these life stages, individuals who volunteer for political organizations may become better aware that their lives are largely shaped by societal and political conditions. In contrast, older adults, who have much more life experience (particularly the current older generations who were socialized during and in the aftermath of World War II), may be aware of such sociopolitical constraints irrespective of being politically engaged (cf. Lachman et al., 2011). However, as we modeled predictors, mediators, and outcomes concurrently, the direction of these effects remains unknown. Consequently, these negative associations may also be attributable to the opposite direction of effects—such as political protest being motivated by frustration (Van Zomeren, 2013).

In sum, our results suggest that it may make a difference for older adults whether they participate in nonpolitical or political volunteering, which may be explained by their being unequally suited to meet age-related social needs, such as harmonious and meaningful social interactions (Carstensen et al., 1999). However, as we found only very small positive effects of nonpolitical volunteering, promoting nonpolitical volunteering among older Germans may not be a suitable intervention strategy to foster their SWB (cf. Bjälkebring et al., 2021). We would therefore not recommend building the recruitment strategies of nonpolitical nonprofit organizations around presumed benefits to well-being in old age; instead, substantial contributions of volunteers to their communities should remain the focus of recruitment messages. In turn, even if political volunteering slightly reduces older adults' SWB, older adults must have a voice in political discussions and decision-making processes. Hence, we think it is important to make political volunteering more attractive for older Germans. Local governments may more strongly promote cooperation among political opponents, for instance by establishing grassroots councils where people with different political opinions can exchange political ideas, suggest policy changes, and work toward their implementation. Although conflicts may still emerge, such forms of political

participation will be more consensus based and are more likely to be appreciated by the general public.

5 Limitations

This study's limitations are common to a secondary use of a panel dataset: longitudinal attrition, irregular and infrequent measurements, self-report measures, several single-item measures, and alternating rating scales. We partly addressed these issues by using a full information estimator, adding missing data covariates, and adjusting for different rating scales. For the operationalizations of constructs, we could only use measures that were available in the SOEP. We distinguished between nonpolitical and political volunteering without knowing the exact activities undertaken. However, comparisons with the rates of nonpolitical and political volunteering in the FWS supported the validity of the items. Moreover, social support availability had little variance: across age groups, in more than 96% of observations, participants reported availability of social support (see Table 1). As the direction of within-person associations remained unclear, our findings allow for no causal interpretations.

6 Conclusions

Volunteering is seen as an excellent opportunity for older adults to compensate for age-related losses and to satisfy age-related needs. Indeed, our results indicate that mainly for older adults, SWB may be subtly altered by volunteering—in a positive way through nonpolitical volunteering but also in a negative way through political volunteering. However, across age groups, the positive effects of engagement in other leisure activities were stronger than those of nonpolitical volunteering. In sum, we call for more attention to the well-being benefits of different types of volunteering and other leisure activities for various indicators of well-being, and toward possible reasons for differences, especially in age comparison.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s10902-021-00480-4>.

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Availability of data and material Study information, codebook, model descriptions, and preregistered hypotheses can be found at the Open Science Framework: <https://osf.io/qk6mu>

Code availability All scripts for data coding and statistical analyses are available on request.

Declarations

Conflict of interest The authors have no relevant financial or non-financial interest to disclose.

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