

Effects of civic engagement on mental health in age comparison

Dissertation zur Erlangung des akademischen Grades Doctor philosophiae (Dr. phil.) an der Universität Vechta

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Vorgelegt von Matthias Lühr, 2023

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Summary

Aim. It appears to be common knowledge that civic engagement yields mental health benefits for the engaged individual, particularly if older adults are civically engaged. However, although such claims are consistent with theoretical considerations, empirical support for them is rather scarce and was often based on cross-sectional data. The aim of this thesis was to investigate the mental health benefits of civic engagement and potential differentiations in the effects of civic engagement (i.e., age differences, differences among nonpolitical and political engagement) using longitudinal data and a more robust methodological approach that focuses on within-person associations.

Methods. The first two studies that are part of this thesis used data from the German Socioeconomic Panel (SOEP; Study I; $N = 17,720$) and the British Household Panel Survey (BHPS; Study II; $N = 18,550$) to investigate whether there are age differences in the effects of nonpolitical and political engagement on different mental health indicators. To separate within-person from between-person association, multilevel modeling was used. Study III used a sample of retired individuals from the SOEP ($N = 9,043$) to investigate associations between trajectories of nonpolitical engagement and life satisfaction across the retirement transition. To do so, multivariate latent growth curve modeling was employed.

Results. In Study I and Study II, there were hardly any significantly positive associations between civic engagement and mental health indicators. If positive associations could be observed, they emerged mainly for associations between nonpolitical engagement and life satisfaction among older adults. In Study III, positive associations between trajectories of nonpolitical engagement and life satisfaction were more likely observed in retirement and among retirees with a lower level of life satisfaction.

Conclusions. The results suggest that civic engagement generally does not yield considerable mental health benefits. However, individuals may indeed benefit from civic engagement after retirement as it may compensate for role losses following retirement.

Introduction

According to the German Survey on Volunteering (Simonson et al., 2021), 39.7% of the German population aged 16+ was involved in some form of voluntary engagement in 2019. Moreover, a clear trend in the numbers of voluntary engagement has appeared across the last two decades: average rates of voluntary engagement increased by about 10 percentage points from 1999 to 2019. This trend was particularly obvious among individuals aged 65+, whose average rate increased from 18.0% in 1999 to 31.3% in 2019. Increased rates of voluntary participation point to the increased sociopolitical relevance of such engagement. Apart from its importance for social cohesion and the functioning of society in general (Verba et al., 1995), the benefits of civic engagement for the engaged individual have been spotlighted in recent years. Voluntary organizations or other associations/individuals trying to promote voluntary engagement have underlined the mental health benefits of civic engagement, particularly for older engaged individuals: advocates maintain that these contributions provide meaning in life, increase self-esteem, help participants make new friends, and increase happiness (Flexhero, n.d.; Health Education England, 2017; Techniker Krankenkasse, 2023).

The overall goals of this thesis were to investigate these supposed mental health benefits of civic engagement in more detail and to test differences in benefits among individuals (who benefits?) and particularly differences in the effects by age (are benefits stronger in old age?). The first two studies that constitute this thesis originated in my work in the project “Psychosocial Benefits of Civic and Political Participation across the Life Span and in a European Comparison: Who Gains What from Which Activities, and Why?” (PI: Prof. Dr. Maria Pavlova), which was funded by the German Research Foundation (DFG). I contributed to both studies as the first author. In Study I (Lühr et al., 2022b), we looked into age group differences (younger adults vs. middle-aged adults vs. older adults) in the effects of nonpolitical and political engagement on various mental health outcomes using large-scale

panel data from Germany (German Socio-Economic Panel, SOEP). In Study II (Lühr et al., 2022a), we elaborated on age differences in the effects of nonpolitical and political engagement using large-scale panel data from the UK (British Household Panel Survey, BHPS; Understanding Society, UndSoc). Following the results of the first two studies, I conducted a further study with SOEP data, which was not part of the original research project: in Study III (Lühr, 2024), I asked which older adults benefit from civic engagement in particular by analyzing differences in the effects of civic engagement before and after retirement and by considering the level of mental health prior to and at retirement as a moderator of associations between civic engagement and mental health in retirement.

The three studies contributed substantially to research on aging because we investigated whether theoretical perspectives on motivational and role changes with increasing age (Baltes, 1997; Carstensen et al., 1999; Erikson, 1950) are applicable to research on civic engagement and mental health. To do so, we tested differences in the effects of civic engagement on mental health among distinct age groups and between different life phases (i.e., prior to retirement vs. after retirement). Moreover, we combined the theoretical perspectives on aging with differentiations among types of engagement in the field of political science (Theiss-Morse & Hibbing, 2005; Verba et al., 1995) to analyze age differences in the effects of nonpolitical and political engagement. The three studies also contributed methodically to research on civic engagement and mental health because we focused on within-person associations between civic engagement and mental health. This methodological approach has been seldom used in research, but is adapted to what lies at the heart of most questions in psychological research, the research questions of this thesis included: an interest in within-person change.

Definitions

Civic Engagement

The term *civic engagement* has no clear definition in the scientific literature and is often used interchangeably with other concepts (Adler & Goggin, 2005). Most research on civic engagement and mental health stems from North America, where the term “volunteering” is prominent (Wilson, 2000, 2012). Although definitions of volunteering differ too, Morrow-Howell (2010) may have provided the most distinctive definition of formal volunteering by naming three of its criteria: an unpaid activity, conducted within a formal organization, and directed toward a common cause. Civic engagement is typically a broader construct than formal volunteering and includes different forms of participation (e.g., church attendance, voting, making donations; Adler & Goggin, 2005; Putnam, 1995). For the purpose of this thesis, I applied a narrower definition of civic engagement, one that includes formal volunteering according to Morrow-Howell (2010) and active participation in voluntary organizations (Wilson, 2000). In sum, I focused on voluntary engagement in groups that might also organize themselves more privately (e.g., citizens’ initiatives). However, this definition does not subsume informal, unstructured, or solitary activities (e.g., helping neighbors with their relocation). This definition of civic engagement resembles the understanding of voluntary engagement as applied in the German Survey on Volunteering (Simonson et al., 2021).

People can engage in a variety of organizations, for a variety of different purposes. One potential differentiation we made in the DFG-funded project among types of engagement refers to the distinction between nonpolitical and political engagement (Theiss-Morse & Hibbing, 2005; Verba et al., 1995). Nonpolitical engagement is regarded as an activity directly related to the common cause, mostly by helping others. Such immediate helping activities might aim to support people or animals. Typical examples include engagement in an animal shelter, for homeless people, or at a fire department. Political engagement is generally

directed at policy change and therefore contributes less directly to the common cause, by aiming to change the societal or political conditions in which people live. Typical examples include engagement in a political party or in the context of protest movements (Pavlova et al., 2022; Pavlova & Silbereisen, 2015; Theiss-Morse & Hibbing, 2005; Verba et al., 1995).

Mental Health

According to the World Health Organization (WHO; 2004), mental health describes not only an absence of mental illnesses, but also an interplay of physical, psychological, and social well-being that allows the individual to realize their ability, cope with stressors, and make a contribution to the community. This is a very broad definition of mental health that even refers to physical conditions. For this thesis, I broadly applied this definition, but did not include physical well-being. In accordance with the WHO definition, I considered subjective, psychological, and social well-being as elements of mental health (Keyes, 2005, 2006).

Subjective well-being (SWB) consists of two components: an emotional component (affective well-being) and a cognitive component (cognitive well-being; Diener et al., 1999; Luhmann, Hofmann, et al., 2012). Affective well-being delineates positive emotions (e.g., feelings of joy, happiness, pride) and the absence of unpleasant emotions (e.g., feelings of sadness, anger, worry). Cognitive well-being refers to evaluations of one's life that either pertain to life as a whole (i.e., general life satisfaction) or to specific life domains (i.e., domain satisfaction, such as satisfaction with leisure or work). Due to its focus on pleasure and enjoyment, SWB is sometimes characterized as hedonic well-being (Keyes, 2006; Ryan & Deci, 2001).

The concept of psychological well-being (PWB) roots in the work of Ryff (1989, 2014), who introduced PWB as a counterpart to SWB. Drawing on thoughts from Aristotle, Ryff related the Greek term *eudaimonia* not to happiness, but to feelings of meaning, direction, and self-realization; the terms *eudaimonic well-being* (a term prominent in self-determination theory; Ryan & Deci, 2000) and PWB are therefore often used synonymously.

Ryff (2014) formulated six dimensions of PWB: autonomy (i.e., self-determination and independence), environmental mastery (i.e., a sense of competence in managing one's life), personal growth (i.e., a sense of development in self and behavior), positive relations with others (i.e., signs of empathy and affection in relations with others), purpose in life (i.e., past and present life is perceived to be meaningful), and self-acceptance (i.e., positivity, acceptance of duality in life).

Finally, underlining the social context of one's life, Keyes (1998, 2006) distinguished social well-being (SoWB) from other dimensions of well-being. SoWB can be defined as one's functioning in society and the perceived quality of relationships. Keyes (1998, 2006) cited social coherence (i.e., making sense of the social world one lives in), social actualization (i.e., optimism regarding the future of society), social integration (i.e., feeling part of communities and society), social acceptance (i.e., trust in others), and social contribution (i.e., perception of being able to contribute to society) as indicators of SoWB. Social indicators that may be more concrete and are often assessed in research, such as receiving social support or having close relationships, can be equally summarized under SoWB (Manwell et al., 2015).

Theoretical Background on Mental Health Benefits of Civic Engagement

The Benefits of Helping

Why is civic engagement thought to contribute to better mental health? One line of theoretical considerations relates the mental health benefits of civic engagement to the act of giving, helping, or prosocial behavior in general. Researchers stated that helping others makes the helper feel a "warm glow" (Andreoni, 1990; Handy & Mook, 2011; Musick & Wilson, 2003). Thoughts like this were expressed most explicitly in the (economic) theory of warm-glow giving (Andreoni, 1990). The warm glow refers to a feeling of joy, satisfaction, and happiness rooted in the perception of having done something good and acted selflessly based on one's altruistic values (Andreoni, 1990; Midlarsky & Kahana, 2007). Several

complementing explanations explore how helping contributes to the feeling of a warm glow or to better mental health in general.

First, acting to the benefit of others offers an opportunity to set oneself apart from others and to signal social status, the more so as society generally values such commitments (Handy & Mook, 2011; Piliavin & Siegl, 2015). Second, helping others often means meeting disadvantaged others, which may distract helpers from their own troubles and compel them to compare themselves with worse-off individuals (Heckhausen et al., 2010; Midlarsky, 1991). Third, actively engaging in a behavior that produces outcomes that are important to others may improve PWB (e.g., sense of competence, mastery, meaning in life, or self-worth) in particular (Midlarsky, 1991).

The Benefits of Social Roles and Networks

Another line of theoretical considerations has emphasized the importance of involvement in social roles and networks for mental health. As such, involvement in voluntary organizations means assuming a social role and being part of a social network (Piliavin & Siegl, 2015; Son & Wilson, 2012). As Sieber (1974) pointed out in role accumulation theory, accumulating social roles yields benefits for the individual because they provide status security and enhancement (e.g., organizational positions symbolize relevance), personal growth (e.g., by negotiating conflicting demands and information), and ego gratification (e.g., role demands contribute to a sense of being needed). Likewise, ideas based on identity theories underline that social roles are accompanied by a set of identities and self-categorizations that are filled with meaning and foster feelings of self-esteem and mattering (Thoits, 1983).

Moreover, civic engagement may be seen as a source of social integration. Drawing on Durkheim's (1897) work on social integration, Berkman and colleagues (2000) proposed a model that links social networks to health. According to this model, participation in social networks fosters social interactions, social support, attachments to organizations, bonds

among members, and opportunities for meaningful activities. These primarily social benefits can be expected to apply to civic engagement too because it is conducted within a structure of a social network and requires coordination and mutual commitment with like-minded others to benefit a common cause (Musick & Wilson, 2003; Piliavin & Siegl, 2015; Rook & Sorkin, 2003; Van Ingen & Kalmijn, 2010).

Losses and Needs in Old Age

Scholars have used life-span theories to explain why older adults in particular may benefit from civic engagement. From a perspective focusing on social roles, ageing may be accompanied by decreasing engagement in social roles, such as family roles (e.g., role as a parent) or working roles, which can impair mental health (Morrow-Howell, 2010; Thoits, 2010, 2011). Researchers have described compensating for these losses as key to successful ageing, in other words, by remaining active and socially involved (activity theory; Havighurst, 1961), continuing established lifestyles and activities (continuity theory; Atchley, 1989), or substituting no longer available means and resources with new ones that are easier to realize (selection-optimization-compensation model; Baltes, 1997). Civic engagement may be well suited for role compensation because it entails assuming a formal social role much like the working role as it includes social involvement and engagement in productive activities (Anderson et al., 2014; Musick & Wilson, 2003; Piliavin & Siegl, 2015).

Another group of life-span theories refers to older adults' needs and motivations. Drawing on these theories, one may reason that civic engagement allows older adults to fulfil age-related needs and motivations. Socioemotional selectivity theory posits that when future time is perceived as limited (e.g., in old age), individuals are present-oriented and strive for emotional meaningful experiences, which encompass spending time with close others (Carstensen et al., 1999). In his stage model of psychosocial development, Erikson (1950) used the concept of generativity to describe an increasing desire in middle age to focus on the welfare of others in general and the next generations in particular. Later concepts of

generativity assumed such a desire to be present in older age as well (McAdams & de St. Aubin, 1992). Taken together, these ideas suggest that activities in old age are driven by motivations to socialize with close others, to experience positive emotions, and to help others (Okun & Schultz, 2003; Omoto et al., 2000). As a prosocial activity that is often undertaken together with friends and family members (Van Ingen & Kalmijn, 2010), civic engagement may satisfy these motives.

Previous Empirical Findings

Research on civic engagement and mental health has been driven by volunteering research in North America (Anderson et al., 2014; Wilson, 2000, 2012). Researchers began investigating mental health correlates of civic engagement in the 1970s (Wheeler et al., 1998; Wilson, 2000). Due to the arguments discussed above, they have often examined associations in older adults (Wheeler et al., 1998), only occasionally in younger age groups too (Piliavin & Siegl, 2015). In these early studies, researchers focused almost exclusively on SWB outcomes (e.g., life satisfaction, happiness) and found positive associations with civic engagement (Piliavin & Siegl, 2015; Wheeler et al., 1998). However, evidence for the mental health benefits of civic engagement remained limited because almost all studies were cross-sectional/correlational (for reviews, see Anderson et al., 2014; Piliavin & Siegl, 2015; Wheeler et al., 1998). Since the early 2000s, there is an increase in longitudinal studies and an interest in potential differentiations in the effects of civic engagement.

Recent Longitudinal Evidence

Results of early longitudinal studies, which often drew on data from the Americans' Changing Lives Study (ACL; e.g., Musick & Wilson, 2003; Thoits & Hewitt, 2001; Van Willigen, 2000), appeared to underscore the positive effects of civic engagement on mental health, particularly among older adults (for reviews, see Anderson et al., 2014; Piliavin & Siegl, 2015). Findings of more recent studies, published shortly before the work on our project began, supported significantly positive effects as well—though they were surprisingly

small (Barbieri, 2017; Binder, 2015; Croezen et al., 2015; De Wit et al., 2015; Meier & Stutzer, 2008). A difference between the early longitudinal studies and many of the more recent studies concerns the method of longitudinal data analysis. The former studies usually applied cross-lagged panel modeling, the latter fixed-effects modeling. I will discuss differences between these methods in one of the chapters that follows (General Statistical Approach).

Differences among Mental Health Indicators

Over the past years, research has increasingly looked into the associations of civic engagement with mental health indicators other than SWB. For instance, researchers investigated associations with aggregated measures of PWB and SoWB (Piliavin & Siegl, 2007; Son & Wilson, 2012), self-esteem (Thoits & Hewitt, 2001), mastery/self-efficacy (Thoits & Hewitt, 2001), a sense of purpose in life (Greenfield & Marks, 2004), a sense of mattering (Piliavin & Siegl, 2007), social support (Van Ingen & Kalmijn, 2010), and the number of social interactions or social network size (Fried et al., 2004; Wollebaek & Selle, 2002). In sum, with some exceptions, the results of these studies suggested positive associations of civic engagement with the measured mental health indicators. Going a step further, some researchers tried to relate different mental health indicators to each other; that is, they compared effects among them or modeled relations among them. Son and Wilson (2012) found that volunteering was related to higher PWB and SoWB, but not to higher SWB. Other studies treated PWB (e.g., self-esteem, mastery) and SoWB (e.g., social support, social interactions) indicators as mediators of the link between civic engagement and SWB (Brown et al., 2012; Mellor et al., 2008; Müller et al., 2014; Musick & Wilson, 2003; Pilkington et al., 2012). Mediation via SoWB was generally supported, mediation via PWB appeared weaker because the effects of volunteering on PWB were small or not significant, particularly for self-esteem.

Age Differences and Explanations for Them

Empirical studies have generally supported stronger associations of civic engagement with mental health indicators among older adults compared to younger age groups (though most studies explored only SWB; Li & Ferraro, 2006; Mueller, 2018; Musick & Wilson, 2003; Van Willigen, 2000). Consequently, researchers tried to explain why particularly older adults may benefit from civic engagement. Often drawing on a role compensation perspective, they investigated whether individuals with more role losses benefitted more from civic engagement (Greenfield & Marks, 2004; Hao, 2008; Pavlova & Silbereisen, 2012) or whether the effects of civic engagement can be found in retirement (Hansen et al., 2018; Kahana et al., 2013; Sugihara et al., 2008; Wu et al., 2005). Although the findings generally yielded support for more positive effects when individuals experienced more role losses, studies were mostly based on comparisons between individuals with more and individuals with fewer social roles (e.g., retired individuals vs. individuals who still work). Empirical evidence on how mental health changes when an individual loses a social role is rare (for an exception, see Sugihara et al., 2008).

Differences among Types of Engagement

Researchers also investigated whether the effects of civic engagement differ among the organizations in which individuals are engaged. Van Willigen (2000) as well as Musick and Wilson (2003) found associations between volunteering and SWB among older adults to be strongest for church-related volunteering. Likewise, in samples of adults in general or of specific age groups (e.g., adolescents, older adults), associations of civic engagement with SWB and SoWB indicators differed by type of organization: again, engagement in religious or human service organizations yielded positive associations with mental health outcomes, usually appearing to be stronger than those of engagement in environmental organizations, political parties, political movement groups, or work-related organizations (Albanesi et al., 2007; Croezen et al., 2015; Vinson & Ericson, 2014; Yeung et al., 2018).

Aims and Research Questions

The comprehensive aim of this thesis was to elaborate on potential differentiations in the effects of civic engagement on mental health, with a focus on differences in the effects by age. The first two studies that constitute this thesis drew on a conceptual model explicated in the project proposal of the DFG-funded project (Pavlova, 2015). According to the conceptual model, a sense of meaning in life, a sense of mastery and control, and positive social interactions may mediate the link between civic engagement and higher SWB. The idea behind this mediation model was driven by the notion that one cannot expect civic engagement to be enjoyable in the conventional sense (as it sometimes means being confronted by loss and suffering), but it may promote SWB nonetheless because it enhances aspects of PWB and SoWB (i.e., perceptions of meaning and control are dimensions of PWB, positive social relationships refer to high SoWB). Furthermore, age was expected to moderate the associations between civic engagement and mental health outcomes (i.e., SWB and potential mediating constructs); this idea is rooted in the life-span theories and perspectives on role compensation and motivational changes in old age highlighted above (Baltes, 1997; Carstensen et al., 1999; Okun & Schultz, 2003).

Specifically, the conceptual model suggested differences in effects between nonpolitical and political engagement. That is, effects on SWB and mediating constructs as well as age differences in the effects may differ for nonpolitical and political engagement. As political engagement often includes interpersonal conflicts and delayed or unachieved results (i.e., goals of political influence are seldom reached; Pavlova et al., 2022; Pavlova & Silbereisen, 2015; Theiss-Morse & Hibbing, 2005; Verba et al., 1995), political engagement may be less beneficial for mental health than nonpolitical engagement, particularly with regard to perceptions of mastery and the experience of positive social relationships. Moreover, further ideas formulated in the conceptual model were based on socioemotional selectivity theory (Carstensen et al., 1999): The character of political engagement may bother

older adults in particular because such commitments generally do not satisfy their needs for harmonious social relations and immediate emotional gratifications. Therefore, political engagement may yield fewer benefits for sense of control and positive relationships—and via these paths for SWB as well—among older than among younger adults. However, older adults' needs may be satisfied during the (direct helping) activities of nonpolitical engagement, which should result in more beneficial effects of nonpolitical engagement among older than among younger adults.

We tested these conceptual ideas in two empirical studies. In Study I (Lühr et al., 2022b; data from Germany) and Study II (Lühr et al., 2022a; data from the UK), we analyzed whether there are age differences in the effects of nonpolitical and political engagement on various SWB, PWB, and SoWB indicators (for detailed research questions and hypotheses, see chapter Specific Hypotheses, Detailed Statistical Approach, and Results). We tested age differences across a broad age range (i.e., among younger, middle-aged, and older adults).

The third study that is part of this thesis (Lühr, 2024) went beyond the scope of the original project. In line with the overall aim of this thesis (to elaborate on potential differentiations in the effects of civic engagement), I aimed to further differentiate among older adults who benefit more or less from civic engagement. Ultimately, I drew on research on retirement adjustment and on role compensation perspective (Baltes, 1997; Henning et al., 2022; Shultz & Wang, 2011; Thoits, 2012; M. Wang et al., 2011) to analyze whether effects of civic engagement on mental health are stronger in retirement than before retirement. Consequently, I tested age differences implicitly in this study by comparing effects before transitioning into retirement to effects after transitioning into retirement. Due to its similarity to the working role, civic engagement in retirement can be expected to compensate for the loss of the working role and for potential decreases in mental health in the retirement transition (Bjälkebring et al., 2021; Musick & Wilson, 2003). Moreover, I analyzed whether the effects of civic engagement in retirement are stronger among retirees with lower levels of

mental health than among retirees with higher levels of mental health. Civic engagement in retirement may provide in particular individuals who struggled with the retirement-related “loss” of their working role or who experienced job-related problems in the last years of their working life a new, self-selected and thereby salient social role that may help to recover from such concerns (Binder, 2015; Cook, 2015; Henning et al., 2016). In studies that did not focus on retirement or old age, researchers indeed found associations between civic engagement and mental health to be strongest among individuals with low levels of mental health (Binder, 2015; Binder & Freytag, 2013; Neira et al., 2019).

Methods

Datasets and Samples

To answer these research questions, longitudinal data from Germany (SOEP; Study I and Study III) and the UK (BHPS/UndSoc; Study II) were analyzed. Both, the SOEP and the BHPS/UndSoc are representative annual panel surveys of adults (16+) residing in private households in the respective countries. The analysis of large-scale longitudinal datasets has become more and more common in research on civic engagement and mental health. For instance, researchers used data from the ACL (e.g., Van Willigen, 2000), the Survey of Health, Retirement, and Ageing in Europe (SHARE; e.g., Croezen et al., 2015), and many other available longitudinal datasets, including the SOEP (e.g., Meier & Stutzer, 2008) and the BHPS (e.g., Tabassum et al., 2016). The use of these datasets is convenient because they include many variables of interest and data from large, often representative samples.

Study I used SOEP data from 1985 to 2016 (data from 1984 were not included because some relevant measures were assessed with different items or rating scales compared to subsequent waves), Study II BHPS and UndSoc data from 1991 to 2016 (the UndSoc is a continuation of the BHPS), and Study III SOEP data from 1984 to 2019 (retirement-related information was used from 1984 onward; information on many relevant measures was used from 1985 onward, similar to Study I). In Study I and Study II, we split the samples into three

distinctive age groups: younger adults (14–29 in Study I; 16–29 in Study II), middle-aged adults (40–50), and older adults (65–75). These age groups included 7,547 (Study I)/10,536 (Study II) younger adults, 6,437 (Study I)/4,955 (Study II) middle-aged adults, and 3,736 (Study I)/3,059 (Study II) older adults. For Study III, I restricted the sample to individuals who reported retirement between the age of 57 and the age of 75 and who were observed at least once during the time period of 6 years before to 6 years after the year of self-reported retirement ($N = 9,043$).

When large-scale representative data are used, sociodemographic characteristics of the sample largely correspond to the sociodemographics of the general population. For instance, the percentage of women was slightly above 50% across age groups in Study I and Study II and among individuals in retirement transition in Study III. The average age at retirement of the sample for Study III was 63.4, and 52.1% of the sample transitioned from employment into retirement (rather than from homemaking or joblessness).

Measures

Civic engagement was operationalized differently in Study I/Study III (SOEP) and Study II (BHPS/UndSoc). The SOEP items assessed frequency of nonpolitical (“Volunteer work in clubs, associations or social services”) and political (“Involvement in a citizens’ initiative, political party, local government”) volunteering on a frequency scale, such as a scale from 1 (*never*) to 4 (*at least once a week*). The BHPS/UndSoc items assessed whether individuals participated actively in different types of organizations (“Whether you are a member or not, do you join in the activities of any of these organisations on a regular basis?”). We classified the given organizations into nonpolitical and (semi-)political organizations and differed between participation in any nonpolitical organization (0 = *no*, 1 = *yes*) and in any (semi-)political organization (0 = *no*, 1 = *yes*). Average frequencies of nonpolitical and political volunteering were rather low in the SOEP samples, ranging from 1.4 to 1.6 (nonpolitical volunteering) and 1.1 to 1.3 (political volunteering) on the scale from 1 to 4

across age groups in Study I. Average rates of civic engagement differed across age groups in the BHPS/UndSoc sample (Study II). They were rather high among older adults (22.1% for nonpolitical engagement, 21.2% for political engagement), lower among younger adults (7.7%, 8.6%), and more imbalanced among middle-aged adults (13.0%, 22.4%).

Measures of mental health in Study I included general life satisfaction (assessed with a classical single item; scale 0–10) and emotional well-being (4 items on anger, worry, happiness, and sadness; 1–5) as indicators of SWB. General perceived control (7 items on perceptions of external and internal control; converted into a scale from 0–100) and political efficacy (a single item on one’s potential influence on social and political conditions; converted into a scale from 0–100) were treated as indicators of internal control beliefs. Loneliness (“I often feel lonely”; 1–4) and perceived social support in dire situations (in case of needing long-term care; 0/1) were added as indicators of SoWB. In Study II, mental health was assessed with general life satisfaction (single item; 1–7) and GHQ-12 scores (12 items on aspects that include both affective well-being and PWB; 1–4). Other mental health indicators that rather referred to SoWB included perceived social support (5 items on the number of persons available for support; 1–3) and neighborhood belonging (8 items on feelings of connectedness to the neighborhood on which one lives; 1–5).

In Study III, I used frequency of nonpolitical volunteering as a predictor variable and general life satisfaction as an outcome variable (both constructs assessed with the same items that we used in Study I). As another indicator of life satisfaction, I added satisfaction with leisure time (single item; 0–10). For a more detailed presentation of measures, included control variables, and descriptive statistics, see the single papers.

General Statistical Approach

Compared to cross-sectional data, longitudinal data have several advantages: they enable to disentangle within-person processes (e.g., Does mental health change when an individual starts volunteering?) from between-person differences (e.g., Does mental health

differ among individuals who volunteer more frequently and individuals who volunteer less frequently?) and to address the direction of effects (Voelkle et al., 2018). This thesis's research questions refer to within-person processes and the analyses of within-person associations can account for the problem of unobserved heterogeneity among individuals by comparing individuals to themselves at different points in time (Brüderl, 2011; Hamaker & Muthén, 2020). Consequently, confounding of the relationship between civic engagement and mental health by time-invariant factors (e.g., personality) can be excluded if only within-person processes are investigated (Rohrer & Murayama, 2023).

Cross-lagged panel modeling (CLPM) is the most commonly used method to analyze longitudinal data in research on civic engagement and mental health, and many of the empirical findings described above are based on CLPM (e.g., Son & Wilson, 2012; Thoits & Hewitt, 2001; Van Willigen, 2000). In CLPM, an outcome variable is regressed on a lagged predictor variable, controlling for the lagged outcome variable. Such an approach does not separate within-person processes from between-person differences; estimated associations represent a mix of within-person and between-person effects (Berry & Willoughby, 2017; Hamaker et al., 2015; Mund & Nestler, 2019). In contrast to CLPM, variables included in fixed-effects (FE) regressions are centered on the individual's mean on the same variable across observations and their values therefore represent intraindividual comparisons. Hence, FE regressions assess only within-person associations (Allison, 2009; Brüderl, 2011; Giesselmann & Windzio, 2014; Mund & Nestler, 2019). Moreover, the estimation of FE requires at least three waves of data (compared to two in CLPM), which makes it a more reliable approach. Just as FE regressions, multilevel models with observations nested within participants can disentangle within-person from between-person effects. They allow one to analyze within-person associations separately from between-person associations, an approach typically used in psychology (Enders & Tofighi, 2007; Hamaker & Muthén, 2020; L. P. Wang & Maxwell, 2015).

Even if within-person processes are analyzed separately from between-person differences, it will not be possible to determine whether they represent causation effects (i.e., Increasing civic engagement leads to improvements in mental health) or selection effects (i.e., Improvements in mental health lead to increasing civic engagement), which are difficult to separate with observational data anyway (Rohrer & Murayama, 2023). The problem of selection effects may be partly addressed by modeling a time interval between predictor and outcome variables, as it is performed in CLPM (cf. Thoits & Hewitt, 2001). Although time lags between variables cannot address causality either (Kuiper & Ryan, 2018), they can point to a direction of effects or the temporal precedence among variables (e.g., Does an increase in civic engagement precede improvements in mental health?). However, the time between waves in classic longitudinal studies usually constitutes 1 year or even longer and one can expect the effects on most mental health outcomes to have vanished after 1 year (Mroczek et al., 2003; Dormann & Griffin, 2015).

In all three studies that are part of this thesis, I focused on within-person associations between civic engagement and mental health. Moreover, I modeled concurrent associations between civic engagement and mental health (i.e., associations without any time lag) across studies to capture potential short-term effects of changes in civic engagement, with the caveat that it was not possible to establish a direction of effects.

Specific Hypotheses, Detailed Statistical Approach, and Results

Study I

In Study I (for preregistration of methods and hypotheses at The Open Science Framework, see <https://osf.io/qk6mu>), we modeled internal control beliefs (i.e., general perceived control, political efficacy) and the SoWB indicators (i.e. low loneliness, perceived social support in dire situations), which point to positive social relations, as mediators of the association between civic engagement and higher SWB (i.e., general life satisfaction, emotional well-being). This approach was in line with the conceptual model of the project.

We hypothesized that internal control beliefs and positive social relationships mediate the association between volunteering and SWB. Furthermore, we analyzed age differences in the effects of nonpolitical and political engagement on SWB and the mediating constructs. We expected associations of nonpolitical volunteering with internal control beliefs, positive social relationships, and SWB to be more positive in older adults compared to younger age groups; and the associations of political volunteering with internal control beliefs, positive social relationships, and SWB to be more negative the older the participants are.

As specified in the project proposal, we employed multilevel regression models with observations nested within participants. We estimated between-person associations too because they might at least point to selection effects. Researchers have shown that an individual's level of mental health and socioeconomic resources can increase the likelihood of volunteering (De Wit et al., 2015; Lawton et al., 2021; Son & Wilson, 2012; Thoits & Hewitt, 2001; Verba et al., 1995; Wilson, 2000, 2012). Arguments in favor of such self-selections into civic engagement often refer to better health and more resources in comparison to other individuals (De Wit et al., 2015; Lawton et al., 2021), which points to associations at the between-person level. All models were estimated separately for each age group and continuous within-level variables were centered at the group mean (i.e., centered at the individual mean across observations). We used the Bayes estimator with its 95% credibility intervals that point to significance of regression coefficients if they do not cover zero (at $p < 0.05$) and tested for age differences (also at $p < 0.05$) in the effects using overlapping Bayesian confidence intervals with a correction (Knol et al., 2011).

At the within-person level, we found positive total effects of nonpolitical volunteering on SWB indicators only among older adults: more frequent than usual nonpolitical volunteering (i.e., compared to the individual mean of nonpolitical volunteering across observations) was associated with higher life satisfaction. This association was mediated by lower loneliness on occasions with more frequent than usual nonpolitical volunteering, but

only when excluding control variables. By contrast, more frequent than usual political volunteering was associated with lower life satisfaction among older adults. This association was mediated by higher loneliness reported on occasions with higher than usual political volunteering. Within-person associations among younger and middle-aged adults were significantly positive only for political efficacy and even significantly negative for perceived control. As the sizes of significant effects were generally small, we found no significant age differences in the associations of nonpolitical and political volunteering with any mediator or outcome variable. Surprisingly, more frequent informal helping (among older adults) and more frequent informal socializing (across age groups) than usual—two leisure activities we included as control variables—were significantly associated with lower loneliness and higher life satisfaction.

At the between-person level, higher average nonpolitical volunteering was associated with higher average life satisfaction across age groups. Apart from its association with higher average political efficacy, associations of higher average political volunteering often went in an unfavorable direction (e.g., significant associations with lower average perceived control, higher average loneliness, and lower average emotional well-being).

In sum, Study I qualified our hypotheses and the results of previous studies that suggested benefits of civic engagement for the mental health of the engaged individual. Although the analyses included differentiations among mental health indicators, types of engagement, and age, we found hardly any significantly favorable within-person effects and no support for significant age differences. Still, it was a noteworthy result that among older adults, nonpolitical volunteering was associated with higher life satisfaction at the within-person level, whereas political volunteering was associated with lower life satisfaction at the within-person level. However, effect sizes were small.

Study II

Models and hypotheses for Study II were influenced by the results of Study I (for preregistration of methods and hypotheses at The Open Science Framework, see <https://osf.io/kqcbe>). This time, we did not model relations among the various mental health indicators (i.e., general life satisfaction, GHQ-12 scores, perceived social support, neighborhood belonging) because mediation modeling is not worthwhile if no clear effects on the outcome can be expected. Instead, we chose to test differences between the effects of nonpolitical and political engagement more directly. We hypothesized more positive effects of nonpolitical engagement compared to (semi-)political engagement, because we found evidence for a different direction of effects for nonpolitical compared to political engagement in Study I—at least among older adults with general life satisfaction as the outcome. This difference in the direction of effects among older adults also led us to stick to the hypotheses that positive effects of nonpolitical engagement are stronger in older than in younger and middle-aged adults, but that the effects of (semi-)political engagement are more negative the older the participants are. Although Study I did not support these hypothesized age differences, they might turn out to be significant with larger effect sizes in general.

Similar to Study I, we used multilevel modeling with observations nested within participants, employed Bayesian estimation (including 95% Bayesian credibility intervals to investigate significance of regression coefficients at $p < 0.05$), and tested for age differences using overlapping Bayesian confidence intervals with a correction (Knol et al., 2011). The binary predictors of nonpolitical and political engagement were not centered at the within-person level, but we added their person means as between-person predictors to ensure that within-person coefficients were not confounded with between-person associations (Hamaker & Muthén, 2020). To test for differences between the effects of nonpolitical and political engagement, we used a z -test. For all difference tests (i.e., between types of engagement and among age groups), we selected a more stringent level of significance in Study II ($p < 0.01$)

compared to Study I ($p < 0.05$) to adjust for multiple significance testing (i.e., by testing for differences between nonpolitical and political engagement in Study II, the number of difference tests increased considerably).

Taken together, we found few and small significant effects at the within-person level again: positive associations were observed among younger adults, who reported higher neighborhood belonging on occasions they reported political engagement, and among older adults, who reported higher general life satisfaction on occasions with nonpolitical or political engagement. Contrary to our expectations, we found no significant differences in the effects between nonpolitical and political engagement and among age groups. A differentiation among various types of political organizations (e.g., engagement in political parties, work-related organizations) did not identify a subtype of political engagement that was negatively related to any of the outcomes.

At the between-person level, higher average rates of nonpolitical and political engagement were associated with higher average neighborhood belonging. Only individuals with higher average rates of nonpolitical engagement reported higher average life satisfaction.

In sum, the results of Study II resembled those of Study I as there were only few positive associations, but small positive effects on general life satisfaction in older adults that did not differ significantly from effects in younger age groups. In contrast to Study I, political engagement was not associated with lower general life satisfaction among older adults at the within-person level, but rather with higher general life satisfaction.

Study III

The research idea for Study III was influenced by the findings from the first two studies, in which positive within-person associations were most likely observed among older adults. Though, average effects were small, which might be explained by a large variability in effects among older adults. Some might indeed benefit from civic engagement, whereas others might not. Consequently, the main goal of Study III (for preregistration of methods and

hypotheses at The Open Science Framework, see <https://osf.io/m8baw>) was to investigate whether there are subgroups of older adults who benefit more from civic engagement. Drawing on the argument that civic engagement compensates for role losses following retirement (Anderson et al., 2014; Baltes, 1997; Bjälkebring et al., 2021; Musick & Wilson, 2003; Piliavin & Siegl, 2015), I focused on the benefits of civic engagement among individuals in the retirement transition. I concentrated on effects of nonpolitical volunteering on life satisfaction because this combination of civic engagement and mental health indicators yielded the most positive associations in Study I and Study II. I expected associations between nonpolitical volunteering and life satisfaction (i.e., general life satisfaction, satisfaction with leisure time) to be stronger after retirement than prior to retirement. Moreover, I hypothesized that the association between nonpolitical volunteering and life satisfaction after retirement becomes more positive the lower the level of life satisfaction at retirement and the stronger the decrease in life satisfaction prior to retirement.

I used multivariate latent growth curve modeling (MLGM; Bollen & Curran, 2006) to test these hypotheses. MLGM also looks into within-person processes (i.e., in terms of individual trajectories in civic engagement and mental health across time) and can investigate interindividual differences therein. I estimated individual trajectories (i.e., slopes in technical terms) of nonpolitical volunteering and life satisfaction prior to retirement (i.e., in the 6 years before retirement), short-term after retirement (i.e., in the first 2 years after retirement), and long-term after retirement (from 2 years after retirement until 6 years after retirement). Then, I regressed the slopes of life satisfaction on concurrent slopes of nonpolitical volunteering (i.e., prior on prior, short-term on short-term, long-term on long-term). I compared standardized regression coefficients across retirement phases (at $p < .05$) using a z -test. Furthermore, to test moderation of postretirement associations between nonpolitical volunteering and life satisfaction by the level of life satisfaction in the year of retirement and

the trajectory of life satisfaction prior to retirement, I added interaction terms to the previously specified regression models.

The regression coefficients obtained from MLGM indicated whether a more positive change in volunteering frequency (i.e., a stronger increase/weaker decrease in frequency of nonpolitical volunteering compared to other individuals) is related to a more positive change in life satisfaction during the same time period. Indeed, individuals with a more positive change in nonpolitical volunteering also showed a more positive change in life satisfaction short-term and long-term after retirement. Such a pattern of associations was not found for the preretirement phase. Only for general life satisfaction were the associations between concurrent slopes significantly more positive after retirement than prior to retirement. In support of the moderation hypothesis, the added interaction terms turned out to be significantly negative throughout nearly all models. These findings implied that the lower the level of life satisfaction in the year of retirement and the more negative the change in life satisfaction prior to retirement, the stronger the positive effect of nonpolitical volunteering on life satisfaction after retirement becomes.

All in all, the findings suggest that nonpolitical volunteering may be particularly beneficial for retired individuals with a low level of life satisfaction at retirement and who experienced a decrease in life satisfaction prior to retirement. In more general terms, these results imply that at least a specific subgroup of individuals may benefit from civic engagement: individuals who are retired and dissatisfied.

Discussion

The main purpose of this thesis was to investigate potential differentiations in the effects of civic engagement on mental health, and particularly differences in the effects with increasing age. Extant studies have generally supported the idea that civic engagement benefits mental health (Anderson et al., 2014; Piliavin & Siegl, 2015). In the DFG-funded project (Pavlova, 2015) the first two studies for this thesis are based on, we strived to go

further, asking the following: What are the mechanisms by which civic engagement contributes to better mental health? Are there age group differences in the effects of different types of civic engagement? In the third study, I elaborated on the effects of civic engagement in older adults based on the idea that civic engagement may compensate for role losses following retirement. Differentiating among effects of civic engagement prior to and after an individual's retirement, I did not only compare effects across age groups, but effects within an individual before and after transitioning into retirement. To answer the research questions, we used large-scale longitudinal data (SOEP, BHPS/UndSoc) and employed methods of longitudinal data analyses that allowed to analyze within-person processes.

To sum up, the research questions of the separate studies shifted from an interest in mediating mechanisms and differentiations in the effects of different types of civic engagement (Study I and Study II) to the more skeptical question of whether any individuals benefit from civic engagement at all (Study III). This shift was influenced by the mainly null findings from the first two studies. Three general statements can be made based on the results of the three studies. First, they do not support benefits of civic engagement across age groups and mental health indicators. Second, the results challenge the notion that nonpolitical and political engagement affect mental health differently, although Study I supports differences in effects on life satisfaction among older adults in Germany. Third, the results of Study III suggest that the benefits of civic engagement may not depend on age per se, but on the life circumstances of older adults (e.g., being in retirement and dissatisfied). I discuss these findings in more detail next.

Focus on Within-Person Processes

The fact that we found surprisingly few significantly positive associations between civic engagement and mental health in Study I and Study II may be explained by our methodological approach. Multilevel modeling enables estimating within-person processes, which was essential for answering the research questions and for controlling for unobserved

heterogeneity (Brüderl, 2011; Curran & Bauer, 2011; Hamaker & Muthén, 2020). In recent years and concurrently with the papers of this thesis, several studies have also focused on within-person processes of civic engagement and mental health by applying multilevel modeling or FE analyses (Bjälkebring et al., 2021; Dawson-Townsend, 2019; Lawton et al., 2021). The results of these studies and those of prior FE studies (Barbieri, 2017; Binder, 2015; Croezen et al., 2015; De Wit et al., 2015; Meier & Stutzer, 2008) turned out to be similar to the results of Study I and Study II: within-person associations between indicators of civic engagement and mental health were very small and often not significant. Likewise, recent randomized controlled trials (RCTs; the research design most likely to detect potential causal effects) often did not find any significant effects of civic engagement on mental health (Chew et al., 2022; Jiang et al., 2021; Jongenelis et al., 2022; Pettigrew et al., 2020; Whillans et al., 2016).

By applying MLGM, I followed a slightly different methodological approach in Study III. Still, similar to multilevel models, MLGM focuses on within-person processes but analyzes interindividual differences therein (Bollen & Curran, 2006; Curran et al., 2010). The within-person processes in multilevel models and MLGM differ with regard to their reference point: in multilevel models, variables on one occasion are compared to one's (latent) personal mean on the variable across observations (Brüderl, 2011; Hamaker & Muthén, 2020). MLGM is based on within-person changes between subsequent measurement occasions (Bollen & Curran, 2006). Deviations from previous measurements may capture a more systematic process than deviations from individual means, which may facilitate the detection of significant associations between two constructs. In fact, in contrast to Study I and Study II, the results of Study III confirmed the hypothesized positive associations between civic engagement and mental health. However, these differences among study results may also be attributed to the differentiations made in Study III: by investigating the effects of nonpolitical volunteering across the retirement transition and among individuals with different levels and

trajectories of life satisfaction, a group of individuals that indeed benefits from nonpolitical volunteering may have been filtered out.

Differences among Mental Health Indicators

There was a pattern across all three studies: if there were any significant associations between civic engagement and mental health indicators in the expected direction, they emerged mainly for the cognitive component of SWB (i.e., life satisfaction). This result is surprising because PWB and SoWB may be regarded as more proximal outcomes of civic engagement than SWB (Son & Wilson, 2012). It has to be noted that we did not use aggregated measures of PWB (e.g., Ryff, 1989) or SoWB (e.g., Son & Wilson, 2012). Moreover, the indicators used for PWB (i.e., internal control beliefs in Study I, GHQ-12 scores in Study II include aspects of PWB) and SoWB (low loneliness, social support in dire situations in Study I; perceived social support, neighborhood belonging in Study II) may be less closely related to civic engagement than other indicators of PWB and SoWB.

Although the results are not unequivocal (Jiang et al., 2021), a sense of purpose in life may be the mental health indicator for which the most supporting evidence for significant associations with civic engagement has been found across cross-sectional (Greenfield & Marks, 2004; Thoits, 2012), longitudinal (Kim et al., 2020; Nakamura et al., 2022; Yang & Matz, 2022), and experimental (in an RCT; Jongenelis et al., 2022) studies. Feelings of purpose in life are supposed to develop by undertaking meaningful daily activities and in response to overcoming sufferings (Frankl, 1985), both of which may be experienced during civic engagement: the volunteer role is often perceived as a meaningful social role and its activities sometimes mean being confronted with and finding a way to process the suffering of others (Kahana et al., 2013; Morrow-Howell, 2010; Thoits, 2012). Therein may lie a structural difference between perceptions of purpose in life and internal control beliefs: Feelings of control over one's own life may only manifest if one's actions show consistent and lasting effects on one's own life or on society, whereas a sense of purpose in life may

already arise when even small actions are perceived to have some kind of impact on oneself or others (Kahana et al., 2013; Thoits, 2012). In fact, in some studies, associations of civic engagement with purpose in life were significantly positive, whereas associations with mastery or self-efficacy were not (Jongenelis et al., 2022; Kim et al., 2020).

The only favorable within-person association we observed between civic engagement and SoWB indicators was the association between nonpolitical volunteering and lower loneliness among older adults (Study I), which was only significant when control variables were not included. In particular, the indicators of social support used in Study I and Study II may not be the most plausible outcomes of civic engagement: only family members and close friends may provide social support in dire situations (Study I); perceived social support in the BHPS/UndSoc (Study II) assessed foremost emotional support (i.e., caring, sympathy, and understanding from others), which is also provided almost exclusively by confidants (Berkman et al., 2000; Thoits, 2011). Even cross-sectional associations between volunteering and both loneliness and social support (i.e., feeling respected, receiving instrumental support) appeared weak across European countries in the European Social Survey (ESS; Pavlova & Lühr, 2024). One might conclude that some of the ideas behind the supposed social benefits of civic engagement (i.e., the collaborative work for a common cause creates bonds and friendships among individuals; Berkman et al., 2000; Piliavin & Siegl, 2015; Van Ingen & Kalmijn, 2010) may be too optimistic. Instead, civic engagement may “just” increase social involvement and social interactions (Brown et al., 2012; Musick & Wilson, 2003; Thoits, 2011).

Moreover, whether significant associations can be observed with the available longitudinal data might depend on the variability of the investigated mental health indicator. For instance, compare cognitive well-being (i.e. life satisfaction), for which we found significant associations with civic engagement across all three studies, with affective well-being. Life satisfaction refers to rather rational perspectives on one’s life as a whole, which

might change, but slowly and continuously (Diener et al., 1999). In contrast, affective well-being is thought to be highly reactive to momentary circumstances and experiences (Luhmann, Hawkey, et al., 2012; Luhmann, Hofmann, et al., 2012). Hence, affective well-being may vary strongly within hours and days (Mroczek et al., 2003), but adapt quickly in the long term (Henning, 2019). The items in the SOEP and in the BHPS/UndSoc assess emotions across the last month and general civic engagement (i.e., without any information about exactly when activities were undertaken) every year. It is hardly possible to capture short-term changes in affective well-being and short-term associations between civic engagement and affective well-being with these data. As such, it might not be surprising that there were significantly positive associations between civic engagement and cognitive well-being across the studies, but no significantly positive associations between civic engagement and affective well-being (i.e., emotional well-being in Study I, aspects of GHQ-12 scores in Study II).

Differences between Nonpolitical and Political Engagement

In general, the results of Study I and Study II suggest that nonpolitical and political engagement yield equally small mental health benefits for engaged individuals. By contrast, detailed analyses of cross-sectional ESS data across 29 European countries generally supported the idea that nonpolitical engagement yields stronger mental health benefits than political engagement (Pavlova & Lühr, 2023). However, as these associations were only cross-sectional, they were likely intermingled with selection effects. Selection effects may be more pronounced for nonpolitical engagement than for political engagement: between-person results of Study I and Study II generally revealed higher levels of mental health among individuals who were nonpolitically engaged; such a distinctive pattern was not observed for average political engagement. Most of the studies that found differences among effects of various types of engagement were also based on cross-sectional data (Albanesi et al., 2007; Vinson & Ericson, 2014; Yeung et al., 2018). However, in FE analyses of SHARE data, a

specific type of nonpolitical engagement (i.e., participation in religious organizations) yielded stronger favorable within-person associations with depressive symptoms than participation in political organizations did (Croezen et al., 2015).

Moreover, it is noteworthy that in Germany (Study I), associations of nonpolitical volunteering with life satisfaction seemed more positive than associations of political volunteering with life satisfaction, at least among older adults. In the UK (Study II), associations with mental health outcomes appeared to be similar for nonpolitical and political engagement. This observed difference in associations between different countries raises questions about whether there are cultural differences in the effects of nonpolitical and political engagement on mental health. Aforementioned cross-national comparisons based on ESS data (Pavlova & Lühr, 2023) revealed a large heterogeneity in associations of nonpolitical and political engagement with mental health indicators across European countries; this variance could hardly be explained by any country-level characteristics, such as national levels of income inequality or democracy. However, descriptive statistics suggested more favorable effects of both nonpolitical engagement and political engagement in some East European countries (apart from Russia and Ukraine). Particularly associations of nonpolitical participation with mental health indicators were less favorable in Western European countries, including Germany and—to a slightly lesser extent—Great Britain. One might reason that we found few significant associations and no differences between effects of nonpolitical and political engagement because data from Germany and the UK were analyzed.

However, why associations between political engagement and life satisfaction among older adults differed so remarkably between Germany and the UK is still an open question. Compared to other European countries, political engagement is more common in Britain and is expressed in high levels of political persuasion and political campaign activities across genders (Beauregard, 2014). Such high levels of political participation in Britain might be based on a higher sense of political responsibility to participate (Jerome, 2012). As a result,

political participation in Great Britain may attend a sense of fulfilling one's duty (Jerome, 2012; Spicker, 2013), which may be especially important to older adults (Midlarsky et al., 2015). Nevertheless, it is also conceivable that the findings based on BHPS/UndSoc data can be attributed to the operationalization of political engagement in Study II (i.e., participation in any political organization, some of them may not be regarded as purely political) and cannot be replicated in other UK samples. In the ESS study (Pavlova & Lühr, 2023), Great Britain did not stand out as a country where associations between political participation and mental health appeared to be particularly positive among older adults—although they were among younger adults.

Age Differences and the Relevance of Retirement

The findings across all three papers suggest that the effects of civic engagement on mental health do not depend on age per se as there were no significant age differences in effects. Instead, results of Study III support the idea that individuals who experienced specific life events, which are indeed more likely to occur in older age (e.g., retirement), may be the ones who benefit from civic engagement. Retirement may mark a life event associated with substantial changes in daily routines and social interactions, which require adjustments in order to obtain a high level of mental health (Henning, 2019; Henning et al., 2021; Luhmann, Hofmann, et al., 2012; M. Wang et al., 2011). Overall, increasing civic engagement after retirement may help adjusting in retirement, lending support to the idea that civic engagement compensates for role losses after retirement (Baltes, 1997; Bjälkebring et al., 2021; M. Wang et al., 2011).

It is tempting to argue that civic engagement is particularly suited for role compensation after retirement because it resembles the activities undertaken during the working life and reestablishes much of what is “lost” by retirement (i.e., participation in structured, productive activities with colleagues; Anderson et al., 2014; Musick & Wilson, 2003; Piliavin & Siegl, 2015). Such benefits may not apply to other leisure activities because

they are not as closely related to the activities of the working life (Van Solinge & Henkens, 2008). Indeed, in a Swedish longitudinal study, intellectual, social, and physical leisure activities did not predict changes in depressive symptoms among individuals who retired between waves (Henning et al., 2021). However, other studies also point to stronger positive associations between leisure activities and life satisfaction after retirement than prior to retirement (Kuykendall et al., 2015). In Study I, we found stronger associations between leisure activities and mental health than between civic engagement and mental health among older adults—but without taking retirement into account.

If retirement constitutes a life stage in which the effects of civic engagement are particularly beneficial, one might ask whether there are other age-related life events that lead individuals to become more receptive to the benefits of civic engagement. One may think about changes in family roles, including bereavement of family members and friends. Some empirical—though often cross-sectional—evidence indicates that mental health benefits of civic engagement emerge among individuals who do not have a steady partner (Pavlova & Silbereisen, 2012), who experience spousal bereavement (Li, 2007), or who have to mourn the death of a child (Huo et al., 2023). Civic engagement was found to buffer the effects of the loss of family members on mental health, but did not make a difference when individuals bereaved the loss of friends (Jang et al., 2018). Furthermore, engagement in non-kin childcare was related to improved mental health among older adults without grandchildren (Szabó et al., 2021). In essence, it seems likely that the compensation function of civic engagement applies to life events other than retirement.

Going into more detail, one may ask whether retirees benefit more from civic engagement if they start civic engagement or if they continue civic engagement with increased time commitments in retirement. In another FE study from the United States, associations of volunteering with happiness and depressive symptoms were more favorable among older adults who maintained volunteering than among older adults who joined

voluntary organizations (Russell et al., 2022). These results underline the importance of continuity in old age, including the transition from working life to retirement life (Atchley, 1989; Baltes, 1997; Russell et al., 2022; Shultz & Wang, 2011).

The results of Study III also suggest that the level of mental health at retirement and the trajectory of mental health prior to retirement moderate the effects of civic engagement on mental health among retirees. In short, individuals with lower mental health appear to benefit more from civic engagement. Similar results were observed in samples of adults, without any focus on old age or retirement (Binder, 2015; Binder & Freytag, 2013; Neira et al., 2019). From a life-span and role compensation perspective, civic engagement may offer retirees a new meaningful activity after experiencing decreasing mental health (Baltes, 1997; Cook, 2015; Midlarsky, 1991; M. Wang, 2007). Related arguments were made in studies that found stronger associations between civic engagement and mental health among (older) adults with a lower socioeconomic status (Borgonovi, 2008; Dulin et al., 2012; Morrow-Howell et al., 2009): they are thought to benefit more from civic engagement because they have more to gain in terms of finding meaning in life, receiving social appraisal, and revaluing their own life compared to disadvantaged others.

Strengths, Limitations, and Future Directions

In all three studies, large-scale representative panel data, from Germany (SOEP) and from the UK (BHPS/UndSoc), were used. Large-scale panel surveys have plenty advantages: samples are often representative, various constructs are assessed, and they usually span over several years. The panel structure enables separation of within-person change from between-person differences. A major finding of this thesis is that associations between civic engagement and mental health appeared small, even in old age, when considering only within-person processes. With this result, the studies for this thesis belong to a group of new studies that challenged established findings by implementing more robust longitudinal methods (Binder, 2015; Bjälkebring et al., 2021; Croezen et al., 2015; Dawson-Townsend, 2019; De

Wit et al., 2015; Lawton et al., 2021). Another major finding of this thesis is that life-span and interindividual differences in effects of civic engagement could be observed (Study III). Civic engagement was associated with improved mental health when individuals were in retirement and among retirees with lower levels of mental health. With this result, the thesis has contributed to the literature on potential differentiations in the effects of civic engagement among individuals.

Still, whether the results found in the studies for this thesis can be replicated with samples from other countries is debatable. Cross-country differences in the effects of civic engagement on mental health are likely and there may be other countries in Europe (i.e., Eastern European or Mediterranean countries) in which civic engagement yields stronger mental health benefits (Hansen et al., 2018; Haski-Leventhal, 2009; Okulicz-Kozaryn & Morawski, 2020; Pavlova & Lühr, 2023; Vega-Tinoco et al., 2022). Future studies should elaborate on cross-national differences in the effects of nonpolitical and political engagement, preferably with panel datasets that allow analysis of within-person processes. The SHARE dataset may provide a promising panel dataset to investigate effects among older adults living in Europe. SHARE has been used previously in research on civic engagement and mental health, but prior studies used older and only few waves (Hansen et al., 2018), did not take advantage of the panel structure (Haski-Leventhal, 2009; Okulicz-Kozaryn & Morawski, 2020), or did not focus explicitly on cross-national differences (Croezen et al., 2015).

Although using large-scale panel datasets also entails some limitations (e.g., one can only use the measures available, there is a time lag of 1 year or even longer; for a more detailed discussion, see the single papers), it is positive that several studies have finally taken advantage of the panel structure of these datasets, the studies for this thesis included. Large-scale panel studies may be well suited for use in future studies to elaborate on interindividual differences in the effects of civic engagement within a multilevel framework. For instance, differences in effects by personality (cf. Yamashita et al., 2023), gender (cf. Sugihara et al.,

2008), or generative concerns (cf. Chen et al., 2023) may be investigated using these constructs as between-person moderators of within-person effects, particularly among older adults.

Moreover, there are other questions researchers on civic engagement and mental health should afford more consideration. First, as the results of Study III appeared to support the role compensation hypothesis, future studies should search for further evidence of role compensation by civic engagement among older adults—for instance by taking a closer look into changes in family and other social roles. In this context, it may be worthwhile to distinguish whether benefits of civic engagement can be attributed to role compensation (as described in this thesis) or to potential motivational changes in old age (e.g., a stronger motivation to serve society; Omoto et al., 2000). It may be difficult to distinguish these two processes from each other because role loss can be accompanied by motivational changes. For instance, retirement may reinforce the perception that time is limited and thus result in stronger motivations for generative or prosocial behavior, which can be satisfied with civic engagement (Carstensen et al., 1999; Hung et al., 2023; Omoto et al., 2000).

Second, more studies are needed that investigate the time frame between activities of civic engagement and emerging effects for mental health: How many hours, days, weeks have to pass before effects of civic engagement on mental health can be observed? How long do such effects last? How long does civic engagement have to be sustained to yield benefits for mental health? Are there differences among mental health indicators with regard to the time interval? These questions could not have been answered with the SOEP or the BHPS/UndSoc. Answering them requires longitudinal data with much shorter lags than 1 year between waves (for studies with such designs, see Chi et al., 2021; Han et al., 2020; Wray-Lake et al., 2019).

Third, although we found no differences between the effects of nonpolitical and political engagement, differences among different types of engagement may be further investigated. A major limitation of the SOEP and the BHPS/UndSoc data included the lack of

knowledge about the exact types of organizations individuals who were civically engaged participated in. Studies that compare individuals who are active in the same or at least similar organizations with individuals who are active in different types of organizations may elucidate differences in mental health benefits among various types of engagement. Particularly nonpolitical engagement can take place in rather different places, for instance in religious organizations or in homeless shelters. Studies have indicated mental health benefits of engagement in religious organizations (Musick & Wilson, 2003; Van Willigen, 2000), but are the benefits similar, stronger, or weaker for engagement in other nonpolitical organizations? Besides their potential to investigate causal effects of civic engagement on mental health, RCTs may be useful to assign interested individuals to different voluntary organizations and compare effects among these specific organizations.

Conclusions

The results of the studies conducted for this thesis suggest that the effects of civic engagement on mental health were often overestimated in prior studies, potentially because of methodological limitations. Although differences in effects among distinctive age groups were not supported, this thesis points to benefits of civic engagement among individuals who have experienced specific life events or who live in specific life circumstances. Specifically, the findings support positive effects of nonpolitical volunteering on life satisfaction in retirement and among retirees with lower levels of life satisfaction, possibly explained by the idea that civic engagement compensates for role losses following retirement.

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Literaturverzeichnis der Publikationen, die Bestandteil der kumulativen Dissertation sind

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