In sickness and in health

Personal health and political participation in the Nordic countries

Peter Söderlund, *Åbo Akademi University*

Lauri Rapeli, *University of Helsinki*

ABSTRACT. **In search of a better understanding of inequalities in citizen political engagement, scholars have begun addressing the relationship between personal health and patterns of political behavior. This study focuses on the impact of personal health on various forms of political participation. The analysis contributes to existing knowledge by examining a number of different participation forms beyond just voting. Using European Social Survey data from 2012/2013 for Denmark, Finland, Iceland, Norway and Sweden (N = 8,060), self-reported turnout and six alternative modes of political engagement were modeled as dependent variables. Contrary to expectations, poor health did not depress participation across all forms. As assumed by the increased activism hypothesis, all else equal, people with poor health were more active than their healthy counterparts in direct contacts with power holders and demonstrations. The results reveal a "reversed health gap" by showing that people with health problems are in fact more politically active than what previous research, which has focused on voting, has suggested. Although the magnitude of the gap should not be overdramatized, our results stress the importance of distinguishing between different forms of participation when analyzing the impact of health on political engagement. Nevertheless, the findings show that poor health can stimulate people into political engagement rather than depressing activity. This finding holds when the effects of several sociodemographic and motivational factors are controlled for.**

Key words: Self-rated health, political participation, Nordic countries, resource theory, voting

Scholars have long recognized that political participation not only consists of voting, but also involves activities such as working for parties, contacting public officials, boycotting, and demonstrating.[1,2,3] Different forms of political participation vary in terms of how demanding they are; some acts require more physical effort, psychological engagement, and resources such as time, money, and civic skills. Much theorizing has sought to understand how a variety of factors that are unequally distributed across the population predict different forms of political participation. These theories acknowledge not only who are generally more active, but also which groups are more involved in particular kinds of activities.[4] Factors such as social status, education, age, political engagement, and participation in social networks have been repeatedly tested. A speciality in the study of political participation stresses the importance of *health status* on the level of individual political engagement. Conventional wisdom holds that good health has a positive effect and that poor health an adverse effect on political participation, typically measured as voting.[5,6]

Questioning this conventional wisdom, this study focuses on political participation beyond just voting. It provides a critical test of what may be called the health hypothesis of political participation. With this analysis we are primarily interested in how personal health relates to different forms of political participation. The study makes two contributions to existing literature. First, we move beyond electoral turnout to analyze a wider spectrum of participation activities. The question is not just whether participation gaps vary between healthy and unhealthy citizens, but whether they vary by type of political activity. Second, we assess how large the independent effect of health is. The link between

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Correspondence: Lauri Rapeli, Department of Political and Economic Studies, University of Helsinki, P.O. Box 54, Helsinki, Finland 00014. Email: *lauri.rapeli@abo.fi*

health and political participation is likely confounded by other factors. Therefore other potential explanatory variables relating to personal resources, motivation, and participation in social networks are included in the empirical models as control variables because previous research has so convincingly shown that they are important predictors of individual-level differences in political engagement.

We test three hypotheses. A general *health gap hypothesis* assumes that there is a positive relationship between all political participation types and (self-rated) health. In terms of particular forms of political participation, we test two competing hypotheses. The *convenience hypothesis* assumes that people with poor health, relatively speaking, will be more active through forms that pose fewer concrete obstacles to participation. Alternatively, the *increased activism hypothesis* suggests that the health gap in participation will be smallest in modes of participation that are aimed at making a substantive policy impact. Thus, we expect people with poor health to be, relatively speaking, most active in party work, employ direct contacts with politicians and public officials and engage in political demonstrations.

Following an overview of previous literature linking health to political participation, different dimensions of participation and theoretical models are discussed. In the empirical part, health effects on different forms of political participation are analyzed using European Social Survey data (2012/2013). To maximize the number of respondents, but avoid problematic cross-national discrepancies, statistical analyses of individuals from five similar countries—Denmark, Finland, Iceland, Norway, and Sweden—are conducted.

Health and politics

The role of health in explaining political attitudes and behavior is increasingly emphasized by scholars in the field of political behavior. Moreover, scholars in the life sciences stress the need to develop biological models of political behavior, which, besides genetic and neurological determinants, also include physiological factors such as health status, nutrition, stress, and disability.[7] Health is a multidimensional concept, which may involve a mix of short- or long-term illnesses, either developed early or later in life, as well as general fitness. Health-related factors are broad-ranging and include viral and bacterial infections, stress, depression, malnutrition, obesity, general fitness, physical impairment, cognitive impairment, and personality disorders.[8]

Political scientists have embraced this perspective by incorporating personal health into theoretical and empirical models. Contemporary researchers often state that there are very few studies linking health to political participation—but a close reading of the literature reveals that this is a bit of an overstatement. Health has been tested as a possible predictor of political participation since at least the 1970s, especially in the United States[9,10] with evidence of poorer health depressing participation and engendering more negative and passive political views.[11] But mainstream scholarly interest has until recently been minimal.[12]

One of the earlier studies involving urban adults in Canada showed that people active in communal protest and political protest activities had greater signs of stress, particularly if they were unsure about the effectiveness of their actions. Participation in campaign activities was associated with smaller physical stature, but not with stress or general health.[13] The relationship between stressful life events and political attitudes and activism has been studied with mixed results in the United States.[14,15,16,17] Self-assessment of health was related to voting participation among elderly white Americans,[18] urban seniors,[19,20] and seniors across European countries.[21] But a study of older adults in two regions in Finland and Sweden could not establish that health had a strong effect on three modes of political participation (voting, influencing others, and protesting) when controlling for other factors related to the so-called civic voluntarism model.[22]

Acknowledging how health is interrelated with other factors linked to political participation is important because, as Carpenter has argued, "health and illness shape who we are politically."[23] A study of older rural Americans included measures of subjective health, physical ability, days of restricted activity, doctor visits, and nutritional status. Bivariate correlations showed that poor health was associated with lower levels of political efficacy, interest, and participation. Controlling for education and membership in an organization, the impact of health was greatly reduced—but not eliminated.[24] Further analyses of two American national samples showed that the effect of self-reported health was modest on political interest, efficacy, participation, and conservative values after controlling for age, gender, education, and income.[25]

More recent studies, which include a wide array of health indicators, have established a significant relationship between health, political behavior, and attitudes. People with mental and physical impairments

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were shown to vote less and express less external efficacy and trustworthiness.[26,27,28] A recent paper on chronic health conditions and participatory inequalities investigating how diabetes, arthritis, heart disease, asthma, and cancer associate with turnout showed that people with cancer diagnoses were more likely to vote, while those with heart disease diagnoses were less likely to vote in the 2008 American presidential election.[29]

Self-rated general health is an oft-used indicator of a person's health status. Denny and Doyle found that individuals reporting poor/fair health in Britain were 4 percent less likely to vote than those with excellent/good health both in 1979 and 1997.[30] Doyle found a similar gap of about 7 points in Ireland.[31] Mattila and colleagues demonstrated that good health increases self-reported turnout across Europe even when taking into account demographic factors, socioeconomic status, and social connectedness.[32] The turnout gap was about 10 percentage points when contrasting respondents with poor and good health. Based on findings from nationally representative surveys conducted between 1972 and 2010, as well as a longitudinal study of young people in the United States, Pacheco and Fletcher conclude that health affects both turnout and party identification; people with good health are much more likely to vote and to identify with the Republican Party. The authors claim that there is a risk for a health bias in policy because government output is likely to emphasize the preferences of healthy people who are politically active, while ignoring the needs of people with poor health.[33]

Ecological studies in Britain have demonstrated how poor health and high mortality rates are associated with lower turnout rates and larger vote shares for leftist parties.[34,35,36,37,38] At the individual level, other studies conducted in the United States, Europe, and Japan support this finding by showing that individuals with right/conservative political leanings are generally healthier than individuals with left/liberal political views.[39,40,41,42] The causal mechanisms are, however, unclear. In many countries, particularly the United States, political conservatism is associated with higher socioeconomic status, and higher income is strongly correlated with better health. Ideology could be a marker for latent attitudes, values, and beliefs: individuals with conservative values may to a greater extent than liberal value holders engage in health-promoting behaviors that relate to greater individual responsibility and participation in social networks. People with good health may also be more likely to adopt conservative views, while those with poor health could be drawn to leftist parties, which tend to support socially disadvantaged voters.

From this review it is evident that there are a multitude of health effects on political behavior and attitudes. But political participation has almost exclusively been measured as voting. Thinking through the various reasons why health empirically has an impact on political participation is a daunting task, considering the complex causal relations between health and other personal resources. Many studies imply that the independent effect of health on political activity and orientation should not be overstated. Poor health is often socially patterned, being more prevalent among those with lower socioeconomic status who tend to participate less in politics. Health thus goes hand in hand with otherwise adverse life circumstances such as low socioeconomic status (income, education, and occupation), old age (when political participation tends to drop for a variety of reasons), and fewer social connections. Another problem is the location of health in the causal chain. Poor health developed early in life is likely to lead to poorer life chances in terms of attaining education and employment in the long term. Another possibility is that low social position increases psychological distress and increases the risk of developing poor health.

Still, many scholars emphasize the potential independent effect of health on political participation and provide supporting empirical evidence by including relevant control variables. Good health is considered an important resource for political participation separate from other personal and collective circumstances. Poor health thus appears to further reinforce nonparticipation in politics among the less fortunate. The next section briefly reviews the literature on political participation to set up our empirical predictions.

Political participation

Political participation is understood as "action by ordinary citizens directed towards influencing some political outcomes."[43] Teorell and colleagues emphasize four components of participation, including (1) action undertaken by individuals (2) who are ordinary citizens (3) with the intention to influence decisions taken by others (beyond everyday discussions and political interest) and (4) related to any political outcome in society (not only decisions made by public representatives and officials).[44] To acknowledge the variety of competing

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conceptualizations of participation in the literature, we provide a summary below.

Political participation is generally seen as a multidimensional construct consisting of different political activities that cluster into distinct categories (i.e., modes of participation). On the whole, citizens tend to engage in a few similar political activities rather than a wide array of different involvements.[45] Voting is the pivotal form of political participation in representative democracy, but there is a wide variety of between-election activities. Verba and Nie identified four modes of conventional political participation, including voting, campaign activity, communal activity, and contacting public officials.[46] Barnes and colleagues took a wider perspective by distinguishing between conventional and unconventional participation. The latter includes signing petitions, demonstrations, boycotts, occupations, blockades, rent strikes, and other unofficial strikes and protests.[47] Conventional participation encompasses reading about politics in newspapers as well as other forms of media use, discussing politics with friends, working on community problems, contacting politicians or public officials, convincing friends to vote for a particular candidate, participating in election campaigns, attending political meetings, and even running for office.[48]

When describing participation, the concept of civic engagement accommodates the broadcast range of activities. Engagement includes several informal social activities in addition to more formal modes of political participation.[49] Teorell and colleagues presented a more restricted typology encompassing five dimensions of political participation: voting, party activity (e.g., memberships, donations), consumer participation (e.g., signing petitions, boycotting), protest activity (e.g., taking part in demonstrations and strikes), and contacting (e.g., politicians, civil servants). Their typology derives from three criteria: channel of expression (representational or extrarepresentational), mechanism of influence (*exit-based*, which is impersonal and based on the power of masses, or *voice-based*, which is personal and based on the power of informed argumentation), and scope (targeted or nontargeted towards specific democratic institutions).[50] Ekman and Amnå provide a more encompassing classification by distinguishing between latent political participation (political involvement, civic engagement) and manifest political participation (formal political participation, legal and illegal extra-parliamentary participation). Their typology also accommodates nonparticipation (active and passive), as well as individual and collective forms of participation.[51]

Different types of political participation impose different demands or thresholds by varying in influence, degree of conflict, effort required from individuals, and amount of cooperation with others.[52,53] The early *socioeconomic resource* model emphasized the impact of socioeconomic status (namely, income, occupation, and education)[54,55] and highlighted how group mobilization processes intervene to affect participation gaps between social classes in different settings.[56] The more recent *civic voluntarism* model stresses the importance of resources (e.g., time, money, and skills) while acknowledging the role of psychological engagement and recruitment networks.[57]

Whiteley and Seyd examine four rival models (rational choice, social psychological, mobilization, and general incentives), observing that the civic voluntarism model does not account for "why individuals have a demand for participation, or what incentives they have to get involved in politics."[58] They argue that combining elements of different models—the civic voluntarism, social psychology, and general incentives models—is optimal for explaining participation. Teorell and colleagues controlled for *capability* and *motivation* to determine how social characteristics explained different modes of political participation across European countries.[59] Their capability dimension largely concurs with the civic voluntarism model, with factors related to socioeconomic status, civic skills, psychological engagement, and involvement in civic associations included as predictors. Motivation to participate was associated with perceived stake in the issue at hand, entertainment value of participation, expressive incentives (derived from the expression of partisan loyalty), and a sense of civic duty.

How does health fit into a broader theoretical discussion of political participation? The civic voluntarism model offers a useful starting point, since it is likely that health has an indirect influence on participation—one mediated through resources, motivational attitudes, and social connectedness.[60,61] In this model, three factors foster the participation of citizens in political life: resources, psychological engagement, and connection to recruitment networks.[62,63] People with poor health are thus less likely to participate since they either can't, don't want to, or nobody asked them to. Expressing this idea, Pacheco and Fletcher see health as a type of socioeconomic resource that is transmitted from parents to children. In this light, health can be seen as an important

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developmental component in a process through which individuals evolve into habitual voters or nonvoters. In addition, Pacheco and Fletcher argue, health affects political activity through "contemporaneous effects," by which they mean the conditions set by a person's health status that vary throughout the life cycle. For example, becoming ill at some point in life is likely to cause a shift in focus from political to personal matters and worsening health may also tax the cognitive ability needed to uphold civic skills.[64]

There is reason to believe that differences in personal health are connected to different forms of political participation through these linkages. As noted, modes of participation differ in terms of how they relate to political institutions and practices. But whether a particular mode of participation is conventional, exit-based, or voice-based is perhaps not essential for people whose possibilities for taking action are determined by a health-related impairment. We argue that health problems have varying consequences for certain forms of political participation. First, it seems obvious but necessary to assume that all political activity increases with (self-reported) health. This *health gap hypothesis* (H1) follows the common wisdom stemming from studies on turnout that voting diminishes with declining health. The theoretical expression of the hypothesis is a simple extension of Riker and Ordeshook's calculus of voting theorem:[65] poor health raises the costs of participation in relation to expected benefits, making participation more inconvenient and less appealing for people with health issues.

When it comes to particular forms of political participation, we test two competing hypotheses. What we call the *convenience hypothesis* (H2) holds that people with poor health, relatively speaking, will participate more actively through forms of involvement that pose fewer concrete obstacles, such as wearing a campaign badge, boycotting products, or signing a petition. As suggested by the resource model, health problems likely diminish a person's societal resources and this might lead them to seek ways to participate in politics that are most easily accessible. Consequently, we would expect the health gap to be smallest among the following participation types: wearing a badge or campaign button, signing a petition, or boycotting a product. Each of these low-threshold activities are examples of participation where a person's health status is not likely to be a hindrance, unlike turning out for demonstrations, rallies, or party meetings, which are potentially quite demanding for people with health issues or physical disabilities.

Alternatively, people with health problems might feel particularly motivated to participate in politics. They often depend on the public health sector so a lot is at stake for them personally. From this perspective, some participation forms may seem more efficacious than others. The *increased activism hypothesis* (H3) assumes that the health gap in participation will be smallest in those participation types aimed at making a substantive *policy* impact. Thus, we would expect people with poor health, relatively speaking, to be most active in party work, specifically through direct contact with politicians and public officials, even in political demonstrations, because these forms of participation are most closely and directly linked to decision making. A person who is determined to make a difference in policy could be expected to choose to engage through these forms of participation rather than by just voting or wearing a badge. The idea behind the hypothesis approximates the idea expressed by the self-interest theorem, which assumes that ultimately human behavior is driven by maximization of personal gain.[66] We apply this idea to claim that people with poor health can become activated in politics because they have a big incentive to pursue certain outcomes due to self-interest.

The above hypotheses test the relevance of two central explanatory models in the study of political participation, namely resources and motivation. Although we have presented H2 and H3 as competing, they are not intended to be mutually exclusive. Rather, they explore two possible patterns of how health differences might relate to different forms of political participation, thus improving our understanding of how health affects political engagement beyond voting.

Data and methods

Unlike single-country studies, this study uses data from individuals in multiple countries to increase generalizability. Cross-national data from the European Social Survey (ESS) are used to measure political activities, health status, and other individual-level characteristics and attitudes. The ESS has been fielded in more than 30 countries across six survey rounds between 2002/2003 and 2012/2013. To attain temporally comparative data, only responses from the 2012/2013 round are analyzed (ESS Round 6). Furthermore, the national political environment is likely to play a substantial role by exaggerating or ameliorating health effects on participation. Therefore, the five Nordic countries—Denmark, Finland, Iceland, Norway, and Sweden—were selected

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Table 1. Self-reported political participation in the Nordic countries (percent by activity).

	Political participation type						
Country	Voted	Work	Contact	Demonstration	Badge	Petition	Boycott
All	89	5	18	6	18	34	34
Denmark	95	4	17	4	6	25	26
Finland	85	3	19	1	17	24	35
Iceland	89	11	28	18	44	57	34
Norway	87	8	22	10	30	36	25
Sweden	91	4	17	7	20	44	44

Note: Voted = participation in the last national parliamentary election; Work = worked in a political party or action group over last 12 months; Badge = worn or displayed a campaign badge/sticker over last 12 months; Contact = contacted a politician, government or local government official over last 12 months; Petition = signed a petition over last 12 months; Boycott = boycotted certain products over last 12 months; Demonstration = taken part in a lawful public demonstration over last 12 months.

for analysis since they are relatively homogenous in terms of their social, institutional, and political environment. There is, for example, a widespread scholarly consensus that a commitment to active societal participation is especially characteristic of Scandinavian conceptions of citizenship.[67,68] Limiting the analysis to Scandinavian countries therefore minimizes cross-national differences in popular attitudes toward political engagement. A total of $N = 8{,}070$ individuals from Scandinavian countries were interviewed in the 2012/2013 ESS with sample sizes for individual countries as follows: Denmark ($n = 1{,}650$), Finland ($n = 2{,}197$), Iceland ($n = 752$), Norway ($n = 1{,}624$) and Sweden ($n = 1{,}847$). The number of observations in individual analyses is reduced after removing individuals between ages 15 to 17 who were not entitled to vote (just over 4 percent of the original sample) and those with missing values or don't know responses for any of the variables (5 percent of the original sample).

Seven dependent variables modeled as binary outcomes are coded 1 (yes) or 0 (no). Voting is measured as self-reported turnout in the last national parliamentary election. The six other dependent variables capture whether respondents reported any of the following activities in the last twelve months: worked in a political party or action group; wore or displayed a campaign badge or sticker; contacted a politician, government or local government official; took part in a lawful public demonstration; signed a petition; and, boycotted certain products. As shown in Table 1, the Nordic countries resemble each other in many respects. In Iceland, however, participation rates were higher for five of seven forms of political participation. This is in line with prior findings showing that both conventional and unconventional political activity is high in the Nordic countries, particularly in Iceland, when compared to other European countries.[69]

The main self-reported health variable is based on the following question: "How is your health in general? Would you say it is very good, good, fair, bad or very bad?" Although surveys are unlikely to reach those who are in very bad health and can only capture a subjective assessment, self-rated health is a widely used and reasonably reliable indicator of personal health.[70,71] Despite its documented significance, the single item self-reported health measure is not an ideal indicator of a broad concept of health. Mavaddat and colleagues recently argued that self-reported health captures a multitude of factors related to mental health and social well-being, although its predictive power is strongest in relation to physical health.[72] Thus, self-rated health better captures a person's physical than mental health or social functioning. This shortcoming can only be dealt with through the inclusion of additional items, which hopefully can feature in future analyses.

Due to a small number of observations, the categories fair, bad, and very bad are collapsed into a single health category. Health is thus classified into three categories. *Very good* and *good* health both remain distinct while *fair/bad/very bad* health are collapsed into the reference category signifying poor health, against which the other categories are compared. According to Table 2, Finland differs somewhat from the other Nordic countries by having fewer respondents in the very good health category and more in the fair health category.

Analysis strategy

For each dependent variable, two sets of models will be tested. The initial partial models include *age*, *age squared*, *gender*, and *country* as controls. The rationale behind this strategy is to initially assess the impact of health on political participation with adequate precision by controlling for a few baseline variables. We control for a gender gap in subjective health since women tend

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Table 2. Self-reported general health in the Nordic countries (percent by row).

	Subjective general health				
Country	Very bad	Bad	Fair	Good	Very good
All	1	4	20	43	32
Denmark	1	4	20	37	38
Finland	1	4	29	48	19
Iceland	1	3	18	41	37
Norway	1	5	17	43	34
Sweden	1	3	17	45	34

Note: Data are from the sixth round of the European Social Survey (2012/2013). ESS design and population weights were applied when the percentages were calculated. Total number of observations is $N = 8{,}060$ in the five Nordic countries: Denmark ($n = 1{,}581$), Finland ($n = 2{,}114$), Iceland ($n = 694$), Norway ($n = 1{,}547$) and Sweden ($n = 1{,}776$).

to report worse health for a variety of reasons.[73] Age and health are closely intertwined since elderly people are most likely to experience frailty through illness or aging.[74] Gender and age (and its squared term to account for a possible nonlinear age effect on political participation) also tend to explain political participation. In terms of age, middle-aged citizens are more likely than the young and elderly to engage in traditional (or institutionalized) forms of participation, while young people are more active in nontraditional forms of involvement. In terms of gender, men are more likely to participate than women through traditional forms of participation, while women are more active in nontraditional forms of participation.[75] Our empirical findings are largely consistent with these predictions.

A second set of models is useful in determining the relationship between health and political participation when taking into account other confounding variables. The full models include a wide range of factors known to explain political participation at the individual level (see detailed coding in Appendix A). First, citizens must bear the cost of time and cognitive effort required to participate. Therefore, we need to control for resources related to education and income. Second, motivation to act is captured by political interest and ideological position. Third, access to social networks is represented by variables measuring participation in social activities as well as living with a partner.

Results

Because the dependent variables are binary, logistic regression models are estimated. Design and population size weights provided in the ESS are applied. The design weight corrects for different probabilities of selection and the population size weight adjusts so that smaller countries are not overrepresented compared to larger ones. Results of the logistic regressions for all the independent variables are presented in Appendix B. The model fits are highest when predicting voting, working for a party or political action group, and taking part in a lawful demonstration. As will be discussed below, health has different effects (positive, negative, and no effect) on different forms of political participation.

Although our focus is on the relationship between health and political participation, we first review the effects of the other covariates to assess the general performance of the models. These effects are generally in the expected direction. Political interest is overall the best predictor of political participation: moving from not at all interested to being very interested in politics increases political participation in a fairly linear fashion. Being socially active is the second best predictor, based on the size of the regression coefficients (although unrelated to boycotting products). Respondents to the left of the political scale also tend to be somewhat more politically active. Being female is positively related to wearing a badge, signing a petition, boycotting products, and demonstrating—but negatively related to contacting a politician. In line with previous research, age has a curvilinear relationship with several of the dependent variables. Compared to young and elderly people, middle-aged citizens are more likely to contact a politician or public official, sign a petition, and boycott products. Middle-aged and elderly citizens are the most likely to vote. There are indications that the likelihood of working for a party, wearing a badge, and signing a petition decreases with age. Education is a weak predictor when controlling for other variables. And subjective household income and living with a partner provide little explanation. As regards country differences, levels of political participation are generally lower in Finland and Denmark and higher in Iceland.

Table 3 presents the predicted probabilities of the seven outcome measures according to health status. The predicted probabilities for each health status category were calculated by setting the other independent variables to their actual values for each observation and then averaging over the sample. In addition, for each model the difference in predicted probabilities between the most healthy and least healthy respondents was calculated. In models A, we only control for age, gender, and country to understand the effect of health when not taking other strong predictors, such as political interest and participation in social activities, into account.

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Table 3. Logistic regression of self-reported health on political participation.

	Predicted probabilities						
	(1) Voted	(2) Work	(3) Contact	(4) Dem.	(5) Badge	(6) Petition	(7) Boycott
Models A: Controlling for age, sex, and country							
Health							
Fair/bad/very bad	0.862	0.046	0.191	0.073	0.189	0.338	0.333
Good	0.914	0.050	0.177	0.061	0.189	0.366	0.355
Very good	0.931	0.052	0.196	0.050	0.181	0.332	0.352
Differential (Very good − Fair/bad/very bad)	+0.069**	+0.006	+0.005	−0.023*	−0.008*	−0.006	+0.019
Models B: All controls							
Health							
Fair/bad/very bad	0.892	0.051	0.215	0.074	0.207	0.358	0.344
Good	0.910	0.051	0.178	0.061	0.188	0.363	0.353
Very good	0.921	0.048	0.178	0.050	0.170	0.322	0.346
Differential (Very good − Fair/bad/very bad)	+0.029**	−0.003	−0.037**	−0.024*	−0.037**	−0.036	+0.002

Notes. Reported results are predicted probabilities using the average marginal effects method. *Differential* represents the difference in probabilities between the third category (very good health) and the first category (very bad/bad/fair health). Data are from the sixth round of the European Social Survey (2012/2013). ESS design and population weights were applied to the data. $^{**}p < 0.01$; $^{*}p < 0.05$.

The empirical estimates show that better health predicts higher turnout (voted). The effect of health is moderately strong and statistically significant (model A1). To show the magnitude of the effect, the difference in predicted probabilities—when comparing people with very good health to those with fair/bad/very bad health—is 6.9 percentage points. The differences in participation rates between people with good and poor health are smaller for other forms of participation. However, statistically significant marginal effects ($p < 0.05$) indicate that those with poorer health had an increased likelihood of taking part in a lawful public demonstration (model A4) and wearing a campaign badge (model A5).

Models B in Table 3 include all control variables and show that the effect of health is reduced for one variable but increases in a negative direction for several other forms of participation. First, the positive effect of health is reduced for voting—the marginal effect of health is halved in the full model compared to the previous model. Yet health appears to have an independent effect, and the participation gap is about 3 percentage points in favor of people with very good health compared to those with the poorest health. At the same time, health is negatively and significantly related to three forms of political participation, showing that (all else equal) poorer health predicts higher participation rates. The differences in participation rates are statistically significant for having contacted a politician, government or local government official (Contact), having taken part in a lawful public demonstration (Dem.), and having worn or displayed a campaign button or badge (Badge). These findings suggest that people with poorer health are more politically active for some forms of participation if they have the same personal resources as their healthier counterparts. The participation gaps, between 2.4 and 3.7 percentage points, are not overly large—but they favor respondents with poor health.

Table 4 summarizes the hypotheses and the results. In terms of the hypotheses, the results are mixed. The *health gap hypothesis* (H1), which assumed that political activity declines when (self-rated) health declines, must be rejected because voting is the only form of participation where health has the expected positive association. For the *convenience hypothesis* (H2), we find weak support. The expectation was that people with poorer health should, relatively speaking, participate more actively through forms of involvement that pose fewer concrete obstacles (i.e., wearing a campaign badge, boycotting products, and signing a petition). Indeed, there are no significant differences between health groups in terms of signing a petition or boycotting certain products. And when taking a person's cognitive, affective, and social resources into account, people with poor health are more likely than those with good or very good health to wear a campaign badge.

But, contrary to expectations, participation rates are not higher among people with good self-reported health for more demanding forms of political participation (party work, contacting a public official, and taking

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Table 4. Summary of hypotheses and empirical results.

Hypothesis	Expectation	Empirical support
H1: Health gap hypothesis	Poor health depresses all forms of political participation.	No–Poor health only depresses turnout (voting).
H2: Convenience hypothesis	People with poor health will, relatively speaking, participate more actively through forms of involvement that pose fewer concrete obstacles.	Partial–Participation rates of people with poor health, compared to people with good health, are similar or even higher for all forms of participation except voter turnout.
H3: Increased activism hypothesis	People with poor health will, relatively speaking, engage more actively in participation types aimed at making a substantive policy impact.	Partial–Participation rates of people with poorer health, compared to people with good health, are higher in terms of contacting public officials and taking part in public demonstrations, and are similar for working in a party or action group. But, on the other hand, participation rates of less healthy persons are similar or higher for forms of political participation that have less substantive policy impact.

part in a demonstration). Some support is also found for the *increased activism hypothesis* (H3), which predicted that activism among those with poorer health will be higher for those participation types aimed at making a substantive *policy* impact. Indeed, citizens with poor health in the five Nordic countries we studied are more active than those with good or very good health in contacting a public official and participating in lawful demonstrations. The effect of health on party work is weak and insignificant. While poor health may lead some to look for convenient and easy ways to participate, the results of this study suggest that health problems are more likely to lead to increased activism through those forms of participation that potentially give the most tangible results, such as the possibility to affect policy through direct contacts with decision makers rather than indirectly through voting.

Discussion

It comes as no surprise that the impact of health varies between different forms of participation. In line with previous research, we found a significant participation gap for voting between those with good and poor health when holding other explanatory variables constant. But the impact of health on turnout was reduced when introducing a fuller set of control variables. This was understandable given that poor health is more prevalent among citizens with lower socioeconomic status, who tend to participate less in politics.

Health appears to have an impact also on other forms of political participation besides voting when control variables related to resources, motivation, and social connectedness are included. The results show, however, that people with poorer health are *more* likely to be involved in certain political activities. Experiencing poorer health increases the likelihood of wearing a campaign badge/sticker, contacting a politician or public official, and taking part in a lawful demonstration. In light of our hypotheses we interpret this finding as suggesting that two mechanisms are at work. First, it seems possible that people with poor health are drawn to forms of participation that are easily accessible, such as wearing a political badge. When health is not optimal, choosing the most convenient way of expressing one's political views is understandably attractive.

Second, it seems that people with poor health also engage in time-consuming and effortful forms of participation, such as contacting decision makers directly. We speculate that they do so precisely because they have so much at stake: being dependent on help from society, those with poor health actively seek to influence policy making, seeing participation as a high investment–high payoff strategy. If we assume that this calculus is indeed driving our results, it contradicts the findings of Sears and Funk from their seminal study. They found self-interest to be a very poor predictor of political behavior. But, as Sears and Funk also speculate, self-interest could act as a strong motivator if the stakes were high enough.[76] Poor health might therefore be a case where the perceived stakes are so high that self-interest becomes a determinant of political action.

Reflecting on these results, one might wonder why the health hypothesis of political participation did not receive stronger support. Perhaps the effect of health on political participation is weak in the Nordic countries,[77]

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given that Nordic welfare states have a tradition of income distribution, an extensive public health care system, and relatively low barriers to political participation. Citizens with health problems in the five countries studied may have more capacity and motivation to participate in politics than in other national contexts. This view is consistent with Lister, who argues that universalist welfare state institutions and policies engender social norms of solidarity, which in turn are conducive to participation and effectively reduce turnout gaps between different social strata in society.[78]

If contextual factors, such as state welfare policies, modify the relationship between health and political participation, then additional analyses are needed to determine whether the effect of health on political activism depends on the extent of social welfare support (or *welfare stateness*). The descriptive results showed that levels of political participation were generally low in Finland and Denmark and high in Iceland. Although all the Nordic countries are considered social-democratic welfare states favoring universalism and egalitarianism, Iceland can be regarded as somewhat distinct from the others since it has not embraced social welfare to the same extent as the other Nordic countries. The extent of welfare stateness might thus explain some of the contradictory findings in the literature, which have suggested that health can either have a moderate or strong independent effect on political participation, *or* that the effect of health is weak or nonexistent.

In contrast to voting, the almost sole focus of previous work, our results show that poor health can stimulate different forms of participation, at least in the Scandinavian context. For the most part, the reversed health gap documented in this study seems to be driven by higher involvement in forms of participation that are time-consuming and physically costly but also potentially effectual: direct contact with power holders and demonstrations. Health problems might not always present an obstacle to political engagement but may serve as a motivation to action. Although people with poor health often distance themselves from voting, they seem to engage in other ways of getting their voices heard.

The magnitude of the reversed health gap documented here should not be overdramatized, but these results stress the importance of distinguishing between different forms of participation when analyzing the impact of health on political engagement. As we have argued, different forms of participation can be usefully conceptualized through the lenses of convenience and motivation. Most importantly, the results show that even though poor health indeed depresses voter turnout, this association cannot be generalized to other forms of participation.

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Appendix A

Coding of the dependent and independent variables

Category	Variables	Coding	Survey questions
Political participation	1. Voted	0/1	"Some people don't vote nowadays for one reason or another. Did you vote in the last [country] national election in [month/year]?"
	2. Worked in a political party or action group	0/1	"There are different ways of trying to improve things in [country] or help prevent things from going wrong. During the last 12 months, have you done any of the following?"
	3. Contacted a politician, government or local government official	0/1	
	4. Taken part in a lawful public demonstration	0/1	
	5. Worn or displayed a campaign badge/sticker	0/1	
	6. Signed a petition	0/1	
	7. Boycotted certain products	0/1	
Health	1. Fair, bad, or very bad health	ref. cat.	How is your health in general? Would you say it is very good, good, fair, bad, or very bad?
	2. Good health	0/1	
	3. Very good health	0/1	
Age	Age/10	1.8–9.7	Year born
	Age/10 squared	3.24–94.09	
Gender	1. Male	ref. cat.	Sex
	2. Female	0/1	
Education	Years of education (top-coded)	0–25	Years of full-time education completed
Left-right position	0 (Left) to 10 (Right)	0–10	"In politics people sometimes talk of 'left' and 'right.' Using this card, where would you place yourself on this scale, where 0 means the left and 10 means the right?" (original scale: 0–10)
Political interest	1. Not at all interested	0/1	"How interested would you say you are in politics?"
	2. Hardly interested	0/1	
	3. Quite interested	ref. cat.	
	4. Very interested	0/1	
Household income	1. Finding it very difficult	0/1	"Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?"
	2. Finding it difficult	0/1	
	3. Coping	ref. cat.	
	4. Living comfortably	0/1	
Social activities	1. Much less than most	0/1	"Compared to other people of your age, how often would you say you take part in social activities?"
	2. Less than most	0/1	
	3. About the same	ref. cat.	
	4. More than most	0/1	
	5. Much more than most	0/1	
Lives with partner	1. No partner	ref. cat.	Interviewer code: Respondent lives husband/wife/partner
	2. Partner	0/1	

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Appendix B

Logistic regression predicting political participation in the Nordic countries, full models.

	Log-odds estimates						
	(1) Voted	(2) Work	(3) Contact	(4) Dem.	(5) Badge	(6) Petition	(7) Boycott
Health							
Fair/bad/very bad	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Good	0.25	0.02	−0.26**	−0.22**	−0.13	0.03	0.05
	(0.15)	(0.17)	(0.07)	(0.07)	(0.08)	(0.11)	(0.08)
Very good	0.41**	−0.07	−0.26**	−0.45*	−0.27**	−0.18	0.01
	(0.12)	(0.10)	(0.08)	(0.21)	(0.04)	(0.11)	(0.07)
Age/10	0.74**	−0.31**	0.89**	0.11	0.08	0.24	0.49**
	(0.17)	(0.12)	(0.15)	(0.13)	(0.20)	(0.18)	(0.10)
Age/10 squared	−0.04*	0.03	−0.09**	−0.03*	−0.02	−0.04**	−0.06**
	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.01)
Female	0.08	−0.08	−0.25**	0.16**	0.68**	0.45**	0.36**
	(0.13)	(0.20)	(0.07)	(0.04)	(0.08)	(0.04)	(0.09)
Education/10	0.75**	0.04	0.50**	0.12	0.26*	0.22	0.40**
	(0.10)	(0.05)	(0.14)	(0.15)	(0.13)	(0.19)	(0.07)
Left-right position	0.03	−0.09**	0.01	−0.27**	−0.07**	−0.09**	−0.10**
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Political interest							
Not at all	−1.88**	−2.01**	−1.27**	−1.27**	−0.77**	−0.91**	−1.03**
	(0.10)	(0.22)	(0.25)	(0.36)	(0.04)	(0.08)	(0.08)
Hardly	−1.05**	−1.29**	−0.70**	−0.41*	−0.26**	−0.27**	−0.55**
	(0.04)	(0.05)	(0.17)	(0.17)	(0.09)	(0.08)	(0.07)
Quite	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Very	−0.05	1.50**	0.73**	0.89**	0.52**	0.33**	0.40**
	(0.23)	(0.13)	(0.08)	(0.16)	(0.04)	(0.07)	(0.09)
Household income							
Very difficult	−0.55**	0.28	−0.08	0.03	−0.25	0.01	−0.14
	(0.07)	(0.23)	(0.25)	(0.49)	(0.25)	(0.32)	(0.25)
Difficult	−0.37	0.29	0.10*	0.09	−0.19	0.04	0.09
	(0.21)	(0.22)	(0.05)	(0.09)	(0.16)	(0.05)	(0.16)
Coping	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Comfortable	0.20**	0.01	0.02	−0.05	−0.08	0.02	0.01
	(0.07)	(0.11)	(0.02)	(0.10)	(0.07)	(0.05)	(0.04)
Social activities							
Much less than most	−0.84**	−0.22	−0.65**	−0.18	−0.40**	−0.53**	0.12
	(0.15)	(0.18)	(0.10)	(0.25)	(0.15)	(0.16)	(0.20)
Less than most	−0.30*	−0.28*	−0.09	−0.49**	−0.55**	−0.22**	0.04
	(0.13)	(0.14)	(0.13)	(0.06)	(0.12)	(0.02)	(0.10)
About the same	ref.	ref.	ref.	ref.	ref.	ref.	ref.
More than most	0.07	0.71**	0.44**	0.38	0.36**	0.22**	0.13*
	(0.06)	(0.12)	(0.03)	(0.33)	(0.05)	(0.08)	(0.05)
Much more than most	−0.32**	0.94**	0.80**	0.32	0.52**	0.46**	0.02
	(0.07)	(0.14)	(0.22)	(0.23)	(0.03)	(0.13)	(0.14)
Living with partner	0.34**	−0.17	0.06	−0.07	0.07	0.15*	0.01
	(0.07)	(0.25)	(0.04)	(0.10)	(0.13)	(0.06)	(0.05)

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Country							
Finland	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Denmark	0.88**	−0.23*	−0.39**	0.86**	−1.36**	−0.11**	−0.63**
	(0.04)	(0.12)	(0.02)	(0.05)	(0.04)	(0.02)	(0.03)
Iceland	0.23**	1.24**	0.42**	2.67**	1.33**	1.40**	−0.17**
	(0.02)	(0.05)	(0.03)	(0.05)	(0.04)	(0.06)	(0.02)
Norway	0.05**	1.10**	0.21**	2.11**	0.75**	0.55**	0.54**
	(0.01)	(0.06)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)
Sweden	0.68**	0.20**	−0.21**	1.65**	0.19**	0.92**	0.37**
	(0.02)	(0.07)	(0.02)	(0.04)	(0.02)	(0.02)	(0.03)
Constant	−1.39**	−2.16**	−3.79**	−2.65**	−1.55**	−1.27**	−1.52**
	(0.46)	(0.40)	(0.21)	(0.55)	(0.42)	(0.31)	(0.25)
Observations	6,902	7,320	7,319	7,321	7,314	7,301	7,304
Pseudo *R*-Squared	0.181	0.164	0.090	0.145	0.104	0.077	0.078
Correctly predicted (%)							
Dep. variable = 1	90.9%	43.8%	55.7%	47.6%	56.6%	57.9.%	57.9%
Dep. variable = 0	60.4%	94.7%	81.3%	93.7%	82.3%	70.7%	70.5%

Note: Reported estimates are logistic regression coefficients. Cluster-robust standard errors (clustered by country) are in parenthesis below. Data are from the sixth round of the European Social Survey (2012/2013). ESS design and population weights were applied to the data. $^{**}p < 0.01$, $^{*}p < 0.05$. Two-tailed test.

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