



The role of social capital for wellbeing in people with long-term illness and disease

Camilla Ihlebæk

PhD, Professor, Department of Public Health Science, Norwegian University of life sciences (NMBU), Ås, Norway, and Faculty of Health and Social Work Studies, Østfold University College, Fredrikstad, Norway
camilla.ihlebak@nmbu.no

Hilde Katralen

MSc, Department of Public Health Science, Norwegian University of life sciences (NMBU), Ås, Norway
hildekatralen@gmail.com

Emma C. A. Nordbø

PhD, Associate professor, Department of Public Health Science, Norwegian University of life sciences (NMBU), Ås, Norway
emma.charlott.andersson.nordbo@nmbu.no

Anni Skipstein

PhD, Senior adviser, The Public health department, Viken County Council
annis@viken.no

Abstract

Long-term illness and disease are major public health challenges in Norway influencing people's wellbeing. Social capital is known to be associated with good health and wellbeing, however people with long-term illness and disease have increased risk of less participation and social isolation. Thus, more knowledge about how social capital is associated with wellbeing in people living with long-lasting illness and diseases is needed. In 2019, 16,558 people (18–79 yrs.) living in Østfold, Norway, answered a web-based questionnaire about neighborhood quality, social factors, and wellbeing. Stepwise logistic regression analysis on an analytical sample of 6,517 respondents with long-term illness or disease was conducted, to investigate the main association between social capital (operationalized by social support, civic participation, trust, and sense of belonging) and wellbeing, after introducing sociodemographic factors and possible confounders. The main association between social capital and wellbeing was significant, and adding social capital to the model increased the explained variance of wellbeing to 43%. Participants with high social support had 2.7 times higher odds of reporting high wellbeing, compared to participants with low social support. Civic participation increased the odds for reporting high wellbeing by 30%, and for each unit increase on the scales of trust and sense of belonging, the odds increased by 14 and 23%, respectively. These findings underscore the importance of facilitating social capital for this group.

Keywords

social capital, disability, wellbeing, long-term illness

Introduction

Long-term illness and non-communicable diseases are major public health challenges that influence people's lives and wellbeing in populations worldwide (Kinge et al., 2017; Lucas, 2007; WHO, 2017). Individuals with long-term diseases or disability are more disadvantaged in their opportunities to participate in social life (Bickenbach et al., 1999), and research has shown that these people are at increased risk of social isolation and more susceptible to

experiencing emotional loneliness (Emerson et al., 2021; Macdonald et al., 2018; Mithen et al., 2015). This is worrying considering the well-documented beneficial effects of social networks and social support for health and wellbeing (Holt-Lunstad, 2018; Holt-Lunstad et al., 2010). Social networks and social inclusion also seem to play an important part in the management of long-term conditions (Vassilev et al., 2010), and lack of social support increases the risk of mental health consequences of long-term illness and disability (Honey et al., 2011).

Traditionally, illness, disease, and disabilities have been understood within a medical model (Bickenbach et al., 1999; Farre & Rapley, 2017), and hence, the responsibility for treatment, rehabilitation, and interventions for people experiencing ill health have mainly been placed within the health care sector. However, there has been a growing understanding of complexity of illness and disease over the last decades, and the necessity of incorporating psychological and social factors is now being emphasized (Farre & Rapley, 2017). Within public health and health promotion, there is consensus that good health and wellbeing are primarily created and maintained in the communities where people live their daily lives (WHO, 1986, 2018), and it has been suggested that people with long-term illness and disability may benefit from a whole range of social sources and factors at the community level (Reeves et al., 2014; Rogers et al., 2011).

An important social dimension associated with communities is social capital, which is a concept that has several theoretical understandings. Some scholars have described social capital primarily as an individual property, focusing on social networks and how investing in these networks might give access to different benefits for the individual (Bourdieu, 1986; Lin, 2005; Portes, 2000). Coleman (1988) described social capital as a resource for solving collective challenges, emphasizing obligations, expectations, strong norms, and effective sanctions as important factors (Coleman, 1988). Putnam et al. (1993), on the other hand, understands social capital as a collective feature of a community or a social organization and defines social capital as “features of social organizations such as networks, norms and trust that facilitate co-ordination and co-operation for mutual benefit.” Other scholars have argued that social capital exists both at individual and aggregated levels, and as such can be studied both as an individual and a societal resource (Poortinga, 2006; Wollebæk & Seggaard, 2011). According to the latter view, social capital is regarded to facilitate actions and create goods that are favorable for both individuals and communities at large. Furthermore, social capital is often discussed as bonding and bridging social capital, where bonding refers to aspects of social networks that reinforce identities and belongingness in homogenic groups while bridging refers to social networks across different groups (Putnam, 2000). In addition, linking social capital has been described to constitute of norms of respect and trust between vertical lines of formal or institutionalized power in society (Szreter & Woolcock, 2004).

Not surprisingly, given the different understandings of the concept, several operationalizations of social capital components are found in the research literature. According to Putnam, the central dimensions for social capital are social networks and participation or involvement in the community through voluntary organizations, politics, or other civic engagement (Putnam, 2000; Putnam et al., 1993). Generalized trust is suggested as another important component of social capital (Glanville & Story, 2018; Uslaner, 1998; Wollebæk & Selle, 2002), and high levels of generalized trust are associated with both physical health, happiness, and life satisfaction (Hamamura et al., 2017; Helliwell & Putnam, 2004). Furthermore, sense of belonging in the community has been suggested as an important component of social capital (Ahn & Davis, 2020; Carpiano & Hystad, 2011).

The population in Norway and the rest of the Nordic countries scores high on different social capital components, such as level of civic participation, social networks, and generalized trust, compared with other countries (Wollebæk & Seggaard, 2011). However, some groups in Norway, such as immigrants, report lower levels of trust and fewer close friends than non-immigrants (Fladmoe & Steen-Johnsen, 2018), and factors such as ethnic diversity, income inequality, and unemployment seems to threaten high levels of social capital (Fladmoe & Steen-Johnsen, 2018; Ivarsflaten & Strømsnes, 2013). Internationally, people with disabilities have been found to report lower social capital than people without disabilities (Bai et al., 2020; Mithen et al., 2015). This is a concern, considering that research suggests that social capital might be especially important for people with long-term diseases (Koutsogeorgou et al., 2020), and might buffer negative consequences of living with a long-term illness or disease (Lee et al., 2020; Nieminen et al., 2010). In two studies of long-term social assistance recipients in Norway, social capital was found to be positively associated with mental health (Malmberg-Heimonen, 2010) and quality of life (Wahl et al., 2010). However, there is still limited knowledge on social capital in people with long-term illness and disease in Norway, and it is important to address whether and how different dimensions of social capital relate to wellbeing in this group in a Norwegian setting.

Although several studies have reported positive associations between social capital, health, and wellbeing in the general population (Di Martino & Prilleltensky, 2020; Ehsan et al., 2019; Islam et al., 2006; Poortinga, 2012), the causal relationship between social capital and health and wellbeing could be questioned as most studies investigating these associations are cross-sectional. Some authors have argued that it is more plausible that the causal relationship goes from social capital to health, rather than vice versa (Nieminen et al., 2010). This is supported by research showing that social capital components, such as social networks and support, are found to be important predictors of health (Holt-Lunstad et al., 2010). Also, some longitudinal studies have indicated a causal relationship between social capital and mortality (Ejlskov et al., 2014; Hyyppä et al., 2007; Lindström & Rosvall, 2019).

With respect to the wellbeing of people with long-term illness and disease, empirical research has highlighted several other factors that need to be considered when investigating social capital and wellbeing in this group. Socioeconomic factors, such as low income, are associated with lower levels of life satisfaction (Nicolaisen et al., 2019), and groups with low socioeconomic status report lower levels of health-related quality of life once health is impaired (Mielck et al., 2014). The degree of functional impairment when living with long-lasting illness and disease will also affect wellbeing and are associated with lower quality of life or life satisfaction (Nicolaisen et al., 2019; Patrick et al., 2000). Another factor positively associated with wellbeing is physical activity (Haapasalo et al., 2018), and engaging in physical activity has been suggested to be especially beneficial for people with long-lasting diseases and illness (Graham et al., 2008). Loneliness, on the other hand, is found to be negatively associated with wellbeing (Emerson et al., 2021; Maguire et al., 2019; Park et al., 2020). Loneliness could be defined as painful emotional feelings when there is a mismatch between actual and desired social contact, and is not necessarily directly associated with lack of social support or relationships (Beutel et al., 2017).

Given that social capital is found to be an important determinant of peoples' health and wellbeing in general, and that limited research has been undertaken to clarify the role of social capital for wellbeing among chronically or long-term ill individuals, the aim of the current study was to investigate the main association between social capital and wellbeing in people with long-term illness and disease in a Norwegian region, while controlling for

other known factors associated with wellbeing. To cover different dimensions, social capital was operationalized by social support, civic participation, generalized trust, and sense of belonging. Such knowledge will be valuable to prioritize initiatives to promote health and wellbeing for this group of people on arenas outside the health care sector.

Methods

Data source and subjects

This cross-sectional study obtained data from the “Us in Østfold” survey, which was conducted from April to June 2019 (Østfold County, 2019). A representative sample of $n = 97,641$ inhabitants (≥ 18 yrs.) in the former counties of Østfold, Akershus, and Buskerud, in Norway, was invited to participate by email. An eligible sample of $n = 24,430$ opened the link to the questionnaire. Of these, $n = 16,558$ people completed the digital questionnaire in Østfold. For the purposes of this study, only people who reported having a long-term illness or disease (≥ 6 months) in the survey were included. The participants also had to have a complete data set for all variables of interest, resulting in an analytic sample of $n = 6,517$.

Measurements

Global wellbeing was assessed by two questions from the “Us in Østfold” survey. We measured global cognitive wellbeing through a question asking, “Overall, how satisfied are you with life these days?” The responses were on a 10-point scale from 0 (Not at all satisfied) to 10 (very satisfied) (OECD, 2013). The other question captured global eudaimonic wellbeing by asking “Overall, to what extent do you feel the things you do in your life are worthwhile?” on a 10-point scale from 0 (Not meaningful at all) to 10 (very meaningful) (Eurostat, 2013). An unweighted mean score for global wellbeing was constructed by combining the responses on these two questions (Nes et al., 2020). By using the median for the analytical sample, the global wellbeing score was then dichotomized into low wellbeing (< 7.5) and high wellbeing (≥ 7.5).

Social capital was operationalized using the following four indicators from the survey: Social support, civic participation, trust, and sense of belonging. The quality of social support was elicited through the three-item Oslo Social Support Scale (OSS-3) (Meltzer, 2003). A sum score of the three items was constructed and categorized into poor (3–8), moderate (9–11) and strong social support (12–14) (Bøen et al., 2012). Civic participation was measured by the question, “Do you participate in clubs and societies, meetings, boards and councils, evening schools etc. in your leisure time?” To simplify the analyses, the variable was dichotomized into 0 = No (No, never) and 1 = Yes (Yes, but rarely/Yes, 1–2 times a month/Yes, 1–2 times a week/Yes, daily). This cut off for the civic participation variable was chosen with the rationale of a more profound difference between reporting “No, never” and “Yes” in any frequency, than between any of the other categories. Trust was assessed by the question, “In general, do you think that most people can be trusted, or can’t you be too careful in dealing with people?” on a 10-point scale ranging from 0 (can’t be too careful) to 10 (most people can be trusted) (Bjørnskov, 2007; Eurostat, 2013). Sense of belonging in the community was measured by the question, “To which degree do you feel a sense of belonging to the place you live?” The responses were given on a 10-point scale from 0 (no sense of belonging) to 10 (strong sense of belonging) (Nes et al., 2018). Trust and sense of belonging were treated as continuous variables in the analyses.

Sociodemographic factors included in the analyses were gender and age, education (1 = primary school, 2 = high school, 3 = college/university), relationship status

(1 = single, 2 = in a relationship), and employment status. Employment status was recoded into 1 = outside of the labor force (unemployed/sickness leave/disability pension/social welfare), 2 = employed/occupied (full-/part-time job/self-employed/student/military service), and 3 = others (retired/home worker/other).

Confounding variables included restriction of activities of daily living due to disease or health conditions last six months (1 = yes, somewhat/serious restrictions, 2 = not restricted), “Do you participate in any kind of physical activity?” (1 = no, 2 = yes), and loneliness, which was measured with the question “How often do you miss somebody to be with?” (1 = often/very often, 2 = sometimes, 3 = never/seldom).

Statistics

All statistics were processed using SPSS version 25.0. Group differences were tested with chi-squared tests (categorical variables) and independent t-tests (continuous variables). To detect main associations between social capital and wellbeing, a logistic regression model was fitted. The independent variables were entered into the equation in three consecutive steps. Gender, age, education, relationship status, and employment status were entered in the first step, whereas restriction of activities of daily living, physical activity, and loneliness were entered in the second step to be able to control for possible confounding. Lastly, the four indicator variables for social capital (social support, civic participation, trust, and sense of belonging) were entered into the model in the third step. Odds ratios (OR) and 95% confidence intervals (CI) were calculated, and Nagelkerke R Square was used to estimate the explained variance of the model (Pallant, 2010).

Ethics

All informants electronically signed a consent to participate when responding to the survey. The current study was presented to the Norwegian Center for Research Data (NSD), which considered the data to be anonymous and made the assessment that no further ethical approvals were necessary.

Results

The study population had a slight preponderance of women (59%), and the mean age was 52 years (Table 1). More than 40% had higher education, 77% were in a relationship, and nearly half of the respondents were working or occupied. Although the majority reported restriction of activities of daily living due to their long-term disease or health issue, as much as 71% reported to be engaged in some form of physical activity (Table 1). More than half never or seldom experienced loneliness. For the indicators of social capital, most informants reported medium or high social support, and more than half of the study population was engaged in some form of civic participation during their spare time. The mean scores for general trust, sense of belonging in the community, and global wellbeing were 6.8, 7.4, and 6.9 (range 0–10), respectively (Table 1).

There was no significant difference in level of global wellbeing between men and women (Table 2). The bivariate tests showed that higher age, higher education, being in a relationship, working/occupied, no restriction of activities of daily living, engaging in physical activity, and not feeling lonely were significantly associated with high wellbeing (Table 2). All the indicators of social capital: social support, civic participation, general trust, and sense of belonging in the community, were also positively associated with high wellbeing (Table 2).

Table 1. Descriptive statistics. N = 6,517.

Gender (%)	Men	40.8
	Women	59.2
Age (mean (SD))		52.0 (16.2)
Education (%)	Primary school	15.3
	High school	40.3
	College/university	44.4
Relationship status (%)	Single	23.3
	In a relationship	76.7
Work status (%)	Out of work	24.8
	Working/occupied	49.8
	Retired/other	25.5
Restriction of activities of daily living (%)	Yes	72.0
	No	28.0
Physical activity (%)	No	29.5
	Yes	70.5
Loneliness (%)	Often/very often	14.1
	Sometimes	28.0
	Never/seldom	57.9
Social support (%)	Low	30.2
	Medium	47.4
	High	22.4
Civic participation (%)	No	42.5
	Yes	57.5
Trust (mean (SD))		6.8 (2.6)
Sense of belonging (mean (SD))		7.4 (2.6)
Global wellbeing (mean (SD))		6.9 (2.3)

Table 2. Bivariate associations between independent variables and global wellbeing. N = 6,517. Differences between groups tested with Chi-square tests (categorical variables) and independent t-tests (continuous variables).

		Global wellbeing		<i>p</i> -value
		Low	High	
Gender (%)	Men	48.7	51.3	0.867
	Women	48.5	51.5	
Age (mean (SD))		48.6 (16.5)	55.3 (15.2)	<0.001
Education (%)	Primary school	57.6	42.4	<0.001
	High school	51.4	48.6	
	College/university	43.0	57.0	

		Global wellbeing		
		Low	High	<i>p-value</i>
Relationship status (%)	Single	66.4	33.6	<0.001
	In a relationship	43.2	56.8	
Work status (%)	Out of work	72.7	27.3	<0.001
	Working/occupied	42.5	57.5	
	Retired/other	37.1	62.9	
Restriction of activities of daily living (%)	Yes	55.8	44.2	<0.001
	No	29.9	70.1	
Physical activity (%)	No	59.4	40.6	<0.001
	Yes	44.1	55.9	
Loneliness (%)	Often/very often	83.1	16.9	<0.001
	Sometimes	62.7	37.3	
	Never/seldom	33.3	66.7	
Social support (%)	Low	72.8	27.2	<0.001
	Medium	44.4	55.6	
	High	24.9	75.1	
Civic participation (%)	No	60.8	39.2	<0.001
	Yes	39.5	60.5	
Trust (mean (SD))		5.8 (2.6)	7.7 (2.3)	<0.001
Sense of belonging (mean (SD))		6.4 (2.8)	8.3 (2.0)	<0.001

The stepwise logistic regression showed that 43% of the variance in global wellbeing was explained by the model (Table 3). The sociodemographic variables introduced in the first block explained 19% of the variance, and the odds of reporting high wellbeing increased with female gender, higher age, high education, and being in a relationship. Participants who were employed or otherwise occupied with studies, military service, and so on, had more than four times higher odds of reporting high wellbeing compared with participants who were outside the labor force (Table 3). When adding restriction of activities of daily living, physical activity, and loneliness, the explained variance of wellbeing increased to 32%. Participants with restriction of activities of daily living had more than two times higher odds of reporting high wellbeing, and participants who engaged in physical activity had 60% higher odds of reporting high wellbeing. Loneliness was a strong predictor of global wellbeing. Those who sometimes experienced loneliness had more than two times higher odds of high wellbeing, whereas those who never or seldom reported loneliness had more than six times higher odds of reporting high global wellbeing compared to participants who often or very often experienced loneliness (Table 3). The indicators of social capital entered in block 3 contributed significantly to the model, increasing the explained variance to 43% (Table 3). Participants with medium social support had more than 50% higher odds of reporting high wellbeing compared to participants with low social support, and participants with high social support had 2.7 times higher odds. Civic participation increased the odds of reporting high global wellbeing by 30%, and for each unit on the scale of trust and sense of belonging the odds were increased by 14 and 23%, respectively (Table 3).

Table 3. Logistic regression analysis of the association between social capital and global well-being. N = 6,517

	Block 1			Block 2			Block 3		
	OR	95% CI	<i>p</i> -value	OR	95% CI	<i>p</i> -value	OR	95% CI	<i>p</i> -value
Gender ^a	1.38	1.23–1.54	<0.001	1.45	1.29–1.64	<0.001	1.30	1.15–1.48	<0.001
Age	1.04	1.03–1.04	<0.001	1.03	1.02–1.03	<0.001	1.02	1.02–1.03	<0.001
Education ^b									
High school	1.09	0.93–1.28	0.287	0.96	0.81–1.14	0.638	0.82	0.69–0.99	0.041
College/university	1.28	1.09–1.50	0.003	1.00	0.84–1.19	0.967	0.86	0.71–1.04	0.121
Relationship status ^c	2.38	2.09–2.70	<0.001	1.48	1.28–1.70	<0.001	1.46	1.25–1.70	<0.001
Work status ^d									
Employed/occupied	4.21	3.65–4.85	<0.001	3.32	2.85–3.87	<0.001	3.17	2.68–3.74	<0.001
Retired/other	2.32	1.95–2.76	<0.001	2.07	1.72–2.49	<0.001	2.02	1.66–2.46	<0.001
Restriction of activities of daily living ^e									
No				2.22	1.94–2.53	<0.001	1.96	1.70–2.26	<0.001
Physical activity ^f									
Yes				1.60	1.41–1.81	<0.001	1.43	1.25–1.64	<0.001
Loneliness ^g									
Sometimes				2.18	1.77–2.68	<0.001	1.61	1.29–2.01	<0.001
Never/seldom).				6.34	5.17–7.76	<0.001	3.35	2.69–4.17	<0.001
Social support ^h									
Medium							1.54	1.36–1.78	<0.001
High							2.69	2.22–3.24	<0.001
Civic participation ⁱ									
Yes							1.30	1.15–1.48	<0.001
Trust							1.14	1.11–1.17	<0.001
Sense of belonging							1.23	1.19–1.26	<0.001
<i>Nagelkerke R²</i>		<i>0.193</i>			<i>0.318</i>			<i>0.428</i>	
<i>Significance of block^j</i>		<i><0.001</i>			<i><0.001</i>			<i><0.001</i>	

OR = Odds Ratio, CI = confidence interval, Reference categories: ^a male, ^b primary education, ^c Single ^dOutside of the labor force, ^eYes, ^fNo, ^gOften/very often, ^hLow, ⁱNo, ^jOmnibus Test of Model Coefficients.

Discussion

The results showed that social capital, operationalized by social support, civic participation, generalized trust, and sense of belonging, was positively associated with high wellbeing in people with long-term illness and disease. This corresponds with previous research in the general population, where the importance of neighborhood-based social capital for the inhabitants' life satisfaction (Hoogerbrugge & Burger, 2018), as well as the significance of good community ties for mental wellbeing (Lauwers et al., 2021), has been emphasized. Also, a recent study of older adults with chronic non-communicable diseases in six countries showed that social capital was associated with higher subjective wellbeing (Christian et al., 2020).

Important dimensions of social capital are social networks and social support, and in our study, participants with high social support had more than 2.7 times higher odds of reporting high wellbeing. Earlier research has shown that social networks and participation

in social activities are of great value for individuals with limitations due to illness (Maguire et al., 2019), and long-term disease amplify the need for fellowship and social interactions (Lundman & Jansson, 2007). More than half of the participants in our study reported restriction of activities of daily living due to their illness or disease, and for those, social support might be even more important, as earlier research has shown that social engagement is more important for high wellbeing in individuals with disease associated disability (Jang et al., 2004). Still, it is necessary to have in mind that experiencing long-term illness and disease could also potentially influence social capital components like civic participation and social support, and thereby represent a reversed causality in our study.

People with long-term illness and disease have high risk of dropout from the workforce, and consequently, they lose the workplace as an important arena for social interaction and daily activity (Donders et al., 2007). In our study, there was a significant positive association between being employed/occupied and reporting high wellbeing. Still, one of four reported being out of the workforce, and neighborhood-based social capital has been suggested to be particularly important for people who are more neighborhood dependent and spend more time in their neighborhood (Hoogerbrugge & Burger, 2018). People who experience long-term illness or disease might be restricted not only from working, but also from participating in activities or being involved in the community. Involvement in the community through voluntary organizations, politics or other civic engagement is important to facilitate bridging and bonding social capital (Putnam, 2000; Putnam et al., 1993). People with long-term illness and diseases might be restricted from actively participating, but research conducted in Norwegian settings has shown that being affiliated with such organizations is more important than the degree of active participation, and that even passive memberships have positive effect on social capital components such as social trust and civic engagement (Wollebæk & Selle, 2003). Furthermore, leisure time activities and civic participation, such as memberships in clubs, fellowships, or religious group, has been reported to be associated with both psychosocial and physical factors relevant for wellbeing in general (Pressman et al., 2009). Similar results were found in our study as civic participation was positively associated with high wellbeing, and this is in line with earlier research reporting that ensuring participation in volunteer and leisure activities is beneficial for wellbeing in people with disabilities (Freedman et al., 2012). Additionally, community-based interventions to promote civic participation could reduce or prevent disability (Fujihara et al., 2019). Participation and involvement in community activities could also increase trust in others, which would be beneficial considering that high levels of generalized trust are reported to be associated with happiness and life satisfaction (Hamamura et al., 2017; Helliwell & Putnam, 2004). Such an association was confirmed in our study, as generalized trust increased the odds of reporting high wellbeing.

Although chronic and limiting conditions can have substantial negative effect on wellbeing and quality of life, this effect is neither inevitable nor unchangeable (Patrick et al., 2000). Traditionally, care and interventions for people with long-term illness and diseases have been limited to taking place within the health care system. However, a paradigm shift in health and human services has been called for, and new approaches that focuses on strengths, prevention, empowerment, and community conditions are stated to be necessary to make progress towards ensuring wellbeing for all (Prilleltensky, 2005). In our study, the variables measuring social capital added significantly to the explained variance of wellbeing, showing that a special emphasize on building social capital by ensuring social support, civic participation, trust, and sense of belonging for people with long-term illness and disease is beneficial for their wellbeing.

Methodological strengths and limitations

This study has several limitations that need to be considered when interpreting the findings. Firstly, we used cross-sectional data, and no causal relationships between social capital and wellbeing can be inferred. Hypothetically, the causal relationship could go in the opposite direction, as low wellbeing caused by long term illness could negatively impact social capital. One weakness was the low response rate of 20%, and as we had no data on the non-responders, we cannot rule out possible selection bias. However, 80% of the eligible sample, that is, those who opened the link, answered the questionnaire, and the study sample has been reported to be representative of the demographic characteristics of the general population in Østfold (Østfold County, 2019). Several studies have found non-respondents of health surveys to have poorer health than responders (Van Loon, 2003; Volken, 2013), although others have not found health status to play a systematic role for non-response (Ekholm et al., 2010). Some have even reported that the response rate per se have limited effect on health-related biases (Gustavson et al., 2019). Our study population may not be representative for all people with long-term illness and disease in the region, as many with more serious health problems potentially did not respond. However, selection bias is less severe for the interpretation of group differences and associations as long as the groups are comparable (Rothman, 2012). We did not have any information about diagnoses, and the study population therefore might be very heterogenic, consisting of people with both subjective illness and objective physical and/or mental diseases. But the number of respondents in our study was relatively high, which strengthened the associations found between groups and between variables. We chose to dichotomize the outcome variable, as well as two of the predictor variables (e.g., relationship status and civic participation). Several authors have argued against dichotomization of variables, as it may lead to loss of information and other statistical problems (MacCallum et al., 2002; Royston et al., 2006). Other authors have argued that dichotomization is justifiable when a comparison between high and low categories is desired analytically, or for easier interpretation for a wider audience (DeCoster et al., 2011; Farrington & Loeber, 2000; Iacobucci et al., 2015). However, especially for the civic participation variable, the dichotomization could be critiqued, as the “yes” category was heterogenous, covering very different frequencies of participation. We still chose to dichotomize this variable in “no” and “yes” because it could be argued that there is a more profound difference between reporting “No, never” and “Yes (in any frequency)”, than between any of the other categories. Also, it has been shown that being affiliated with civic organizations is more important than the degree of active participation (Wollebæk & Selle, 2007). Another weakness of the study is that no standardized questionnaires for measuring social capital were included in the survey, and we therefore had to operationalize social capital components based on questions on social support, civic participation, trust, and sense of belonging. Although clearly a weakness, all variables used are frequently applied indicators reported in earlier research (Ahn & Davis, 2020; Glanville & Story, 2018; Nieminen et al., 2010).

Conclusion

The results in this study confirmed a positive association between social capital and wellbeing in people with long-term illness and disease. This emphasizes the importance of facilitating social capital to create health-promoting communities for this group.

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