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Individuals with disabilities in grassroots football clubs: volunteering and social capital

Introduction

Currently about 16% of the worldwide population have a temporary or permanent form of physical or mental disability, or both. This number is expected to grow in the future due to an ageing population, but also because of the prevalence of new noncommunicable diseases. The environment of individuals with disabilities is known to influence the experienced (reduced) social support and their social inclusion. To enable the full participation of individuals with disabilities in society, it is necessary to understand the barriers and facilitators that improve their social participation (World Health Organization, 2023).

The personal development of individuals with disabilities through sports, as a way of being better included in society, is important. However, existing research yields mixed evidence (Klenk, Albrecht, & Nagel, 2019): through sports, individuals with disabilities reach a significantly higher level of autonomy and self-esteem than those who do not participate in sports. This personal development eases social inclusion (Di Palma, Raiola, & Tafuri, 2016). Furthermore, sport participation in clubs has the potential to enhance social participation, if able-bodied and people with disabilities are practicing together (Elling, De Knop, & Knoppers, 2001; Waring & Mason, 2010). On the other hand, there is also empirical evidence which suggests that individuals with disabilities are underrepresented in sports and are socially excluded (Collins & Kay, 2014; Kingsley

& Spencer-Cavaliere, 2015; Misener & Darcy, 2014).

Sports clubs are increasingly expected to contribute to the inclusion of individuals with disabilities (Waardenburg & Nagel, 2019). So far, the access of individuals with disabilities to sports is restricted by the limited organizational capacity of sports clubs (Wicker & Breuer, 2014), lack of accessibility of sport halls (Bükers & Wibowo, 2020), or lack of inclusive sport programs (Kitchin & Howe, 2014). Investing in social inclusion of more individuals (with disabilities) might be beneficial for sports clubs as those individuals might unfold their social capital that the entire club (and also able-bodied club members) can benefit from (Darcy, Maxwell, Edwards, Onyx, & Sherker, 2014). Consequently, there is a need for sports clubs to identify which individual-level factors such as volunteering allow individuals with disabilities a better access and subsequent inclusion in sport (Elmose-Østerlund et al., 2019).

Especially for football clubs, empirical evidence suggests that club officials are still challenged to find mechanisms and activities that help including individuals with disabilities. Previous research on football clubs rather focused on the inclusion of spectators and players with disabilities across different cultures, political systems, and impairment groups (Atherton & Macbeth, 2016; García, de Wolff, Welford, & Smith, 2016). While Kitchin and Crossin (2018) outline that the realization of vertical inclusion of individuals with disabilities in football clubs depends on the organization's

size and brand, they only observe processes of assimilation and accommodation to include individuals with disabilities in football clubs which might not be sufficient. Moreover, Southby (2014) states that football fandom might create a feeling of shared social identity and belonging among individuals with learning disabilities; however, football fandom is not likely to (solely) ensure social inclusion of individuals with disabilities in football. Therefore, the question arises, which other leisure activities might support the inclusion of individuals with disabilities in football clubs.

Volunteering is a leisure activity that supports the inclusion of individuals with disabilities in sports clubs (Albrecht, Elmose-Østerlund, Klenk, & Nagel, 2019; Elmose-Østerlund et al., 2019) because of its potential to foster the development of social capital within the organization (Darcy et al., 2014; Kay & Bradbury, 2009). Following Putnam, Leonardi, and Nanetti (1993), social capital is reflected by an individual's relationships, their overall network, and trust. Social capital is categorized into bonding, bridging, and linking capital. This study focuses on bonding capital meaning the strength and density of local ties of individuals (Putnam, 2000). Having a disability might represent a constraint for both volunteering and for the development of social capital within sports clubs.

The purpose of this study is to unfold the link between having one or more disabilities, the extent of volunteering, and the development of social capital within football clubs. The research context is

European grassroots football because football clubs score higher on problems relating to the recruitment and retention of volunteers than clubs providing other sports (Breuer, Feiler, & Rossi, 2018; Bürgi, Lamprecht, Gebert, & Stamm, 2018). This study proposes three research questions: (1) How is having one or more disabilities associated with the likelihood and extent of volunteering in grassroots football? (2) How is having one or more disabilities associated with social capital in football clubs? And (3) How and in what way does volunteering moderate the relationship between having one or more disabilities and the level of social capital in football clubs?

Theoretical framework and literature review

This study draws on leisure constraints theory (Crawford, Jackson, & Godbey, 1991), stating that the participation in leisure activities depends on intrapersonal (e.g., type and extent of disability), interpersonal (e.g., partners or family), and structural restrictions (e.g., monetary and time resources). Having a disability represents an intrapersonal constraint (Sotiriadou & Wicker, 2014), which can limit the ability to participate in volunteering. Previous literature shows that the low number of volunteers with disabilities (Stroud, Miller, Schleien, & Merrill, 2005) might be caused by dependence on the environment (Gignac & Cott, 1998; Imrie & Thomas, 2008), feared rejection, a lack of cooperation of able-bodied individuals, and exclusion in their social environment (Hall, 2010). Relatedly, individuals with disabilities were found to participate significantly less in organized sports than able-bodied individuals (Ullenhag et al., 2012), meaning they have less access to one context of volunteering. The following hypothesis captures this aspect:

H1. Individuals with disabilities have a significantly lower probability to volunteer in sport and spend fewer hours on volunteering than able-bodied individuals.

Even though the relationship between volunteering in sports and social capi-

tal development has been widely studied (Cuskelly, 2008; Darcy et al., 2014; Kay & Bradbury, 2009), the role of having a disability is not fully understood yet. Existing research has found that individuals with disabilities have lower levels of social capital than able-bodied individuals (McPhedran, 2010), especially regarding the strength of local ties and feeling lonely, reflecting social capital in terms of bonding capital (Emerson, Fortune, Llewellyn, & Stancliffe, 2021). Consequently, we hypothesize the following:

H2. Individuals with disabilities perceive their level of social capital in sports clubs as significantly lower than able-bodied individuals.

The motivational model by Mannell and Kleiber (1997) contains the aspects of motivations or needs, behaviour and activity, satisfaction and goals, and feedback. The authors assume that motivations or needs are the drivers why individuals become active for two reasons. The first is a perceived disequilibrium, leading the individual to compensating activities to (re)create a more balanced situation. In the present research context, individuals with a disability might perceive a lack of social capital and a psychological need for bonding with other people (Gage & Thapa, 2012), and therefore become active to satisfy their own goal of social participation. Such actions would be to start volunteering as it is known to increase social capital for able-bodied individuals (Darcy et al., 2014; Kay & Bradbury, 2009), or for existing volunteers to increase their invested hours per month. Sport volunteering might result in positive feedback for individuals with disabilities to volunteer (more hours) as the activity stabilizes personal involvement (Cuskelly, 2008), and enforces norms among club members (Morgan, 2000). Hence, while having a disability might be a constraint for social capital development, dedicating more hours to sport volunteering might mitigate the negative effect of having a disability on social capital development within sports clubs. Accordingly, we hypothesize a moderating effect of volunteering hours:

H3. Sport volunteering moderates the effect of having a disability on social capital in the sense that more volunteering hours reduce the negative effect of having a disability on social capital.

Methods

Data collection

Quantitative cross-sectional data were collected from November 2020 to June 2021 across seven European countries, including Germany, Switzerland, France, Italy, England, Norway, and Poland to cover a wide geographical area throughout Europe. The original English questionnaire was translated by the national football associations into the country-specific language so that seven separate online surveys were programmed on the platform www.socisurvey.de. By using a top-down sampling strategy, the survey link was distributed by the respective national football associations on social media platforms, websites, and directly via e-mail to registered volunteers. The introduction of the survey specified that the survey was targeted at adult volunteers and members of football clubs. The study was conducted in line with the Helsinki declaration and survey participation was anonymous and respondents gave their consent at the beginning of the survey. This sampling procedure resulted in a convenience sample of $n = 20,634$ respondents including a sub-sample of $n = 16,989$ volunteers.

Questionnaire and variables

■ **Table 1** presents an overview of the variables which are used in the empirical analysis.

Social capital within sports clubs

The dependent variable measures social capital, which was assessed using the first four items of the personal social capital (SC) scale of Chen, Stanton, Gong, Fang, and Li (2009). Their wording was slightly adapted to football clubs. Respondents were asked about their social capital in sports clubs in terms of (1) the number of friends in their club (*SC friends*), (2) the number of people they keep a rou-

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Individuals with disabilities in grassroots football clubs: volunteering and social capital

Abstract

Volunteering might be a leisure activity that supports the development of social capital of individuals with disabilities in organized sports. This study investigates the link between having a disability (i.e., physical, mental, or both), the likelihood and extent of volunteering, and the level of social capital in grassroots football clubs. We further examine a moderating effect of volunteering hours on the relationship between having a disability and social capital. Drawing on leisure constraints theory, individuals with disabilities are assumed to have a lower probability to volunteer than able-bodied individuals. Also, we hypothesize that individuals with disabilities perceive their social capital as lower than able-bodied individuals. Based on the motivational model, we assume that sport volunteers with disabilities perceive a higher social capital if they volunteer more hours. Data were collected via an online survey in seven European countries and targeted at adult volunteers and members in football clubs ($n = 16,989$ volunteers). Results of regressions show that having a physical disability is significantly negatively associated with the probability to volunteer in a football club. Further, having either a physical or mental disability is significantly negatively related to an individuals' social capital level. The moderation analyses indicate that volunteers having both types of disabilities perceive a higher social capital if they volunteer more hours per month.

Keywords

Disability · Social participation · Sports · Leisure activities · Soccer

tine contact (*SC contact*), (3) the number of people they trust (*SC trust*), and (4) the number of people who would definitely help them upon request (*SC help*). These four items were rated on a 5-point scale, with 1 indicating low social capital within sports clubs conversely to 5 indicating high social capital within sports clubs. With a Cronbach's alpha of 0.71, the scale was considered reliable (Hair, Babin, Anderson, & Black, 2018) and can be used for further analysis. A mean social capital index (*SC index*) was created based on these four items. The index also has a range from 1 to 5.

Volunteering

Respondents were asked whether they volunteer in their football club (*Volunteering*). As the understanding of volunteering varies between the analysed countries, country specific definitions of volunteering were provided. If respondents agreed that they were sport volunteers, they were asked for the number of hours per month they spent on volunteering (*Volunteering hours*).

Disability

Respondents were asked whether they have a disability. If the respondent clicked on yes, the independent binary variable was coded 1 (*Disability*), 0 otherwise. Furthermore, respondents were asked to state if they have a physical, a mental, or both disabilities, resulting in another three independent dummy variables (*Physical disability*, *Mental disability*, *Both disabilities*).

Control variables

To consider the effects of further individual characteristics, the analysis encompassed further independent variables, including respondents' gender (*Female*), age (*Age*), a foreign nationality (*Foreigner*), educational level (*No degree*, *Primary degree*, *Advanced levels*, *University degree*), and income, which was converted into purchasing power parities using Eurostat (2022) (*Income*). Furthermore, the respondent's country was considered with a set of dummy variables.

Empirical analysis

The empirical analysis consisted of three steps. After providing the sample characteristics, a set of regression models was estimated. To answer the first research question, logistic regression models were estimated to analyse the effect of being disabled on the probability to volunteer in grassroots football. In one model, the binary variable *Disability* was used as an independent variable in one model. In a second specification, this binary variable was replaced by all three kinds of possible disabilities (*Physical disability*, *Mental disability*, *Both disabilities*) to disentangle whether particular types of disabilities drive the effect. Using the same two model specifications, linear regressions were estimated to examine the effect of having a disability on the number of monthly volunteering hours for the subsample of sport volunteers.

To answer the second research question, and following Albrecht et al. (2019) and Elmose-Østerlund et al. (2019), we estimate linear regression models to determine the effect of all three disability types (as independent variables) on the social capital index variable (as dependent variable) for the volunteer subsample. For the third research question, volunteering hours is interacted with the three disability type variables to examine the moderating effect on the dependent variable social capital index. Significant interaction terms are further investigated by conducting a simple slope analysis.

The necessary prerequisites to conduct linear regressions were checked to avoid distortions of the estimations due to multicollinearity. Specifically, correlation analyses were run for all independent variables. Correlations were all below the critical threshold of 0.8 (Hair et al., 2018). To avoid distortions due to heteroscedasticity, all estimations include cluster robust standard errors at the country level. In this analysis, a critical p -value of less than 0.05 is used for all statistical tests, thus, assuming that the likelihood the observed outcome occurred by chance under the null hypothesis is lower than 5%. The empirical analysis was conducted with Stata.

Results

Descriptive statistics

While **Table 1** presents the descriptive statistics for the full sample, **Table 2** displays mean values and standard deviations for the able-bodied versus respondents with disabilities subsamples. In the full sample, 82.3% of respondents

Table 1 Overview of variables and summary statistics for the full sample ($n = 20,634$)

Variable	Description	Mean/ Percentage	SD	Min	Max
SC friends	How do you rate the number of friends in your club? (1 = a few; 5 = a lot)	3.916	1.182	1	5
SC contact	With how many people in your club do you keep a routine contact? (1 = none; 5 = all)	3.369	0.831	1	5
SC help	How many people in your club would definitely help you upon request? (1 = none; 5 = all)	3.647	0.840	1	5
SC trust	How many people in your club do you trust? (1 = none; 5 = all)	3.591	0.856	1	5
SC index	Mean index of the above four social capital items (1 = no social capital; 5 = high level of social capital)	3.631	0.684	1	5
Volunteering	I volunteer in my football club (1 = yes; 0 = no)	82.335	–	0	1
Volunteering hours	Individual volunteering hours per month	28.361	37.630	0	495
Disability	I have a disability (1 = yes; 0 = no)	7.541	–	0	1
Physical disability	I have a physical disability (1 = yes; 0 = no)	6.358	–	0	1
Mental disability	I have a mental disability (1 = yes; 0 = no)	0.645	–	0	1
Both disabilities	I have a physical and a mental disability (1 = yes; 0 = no)	0.538	–	0	1
Female	Gender (1 = female; 0 = male)	13.250	–	0	1
Age	Age (in years)	42.185	14.295	18	99
Foreigner	Respondent has a foreign nationality (1 = yes; 0 = no)	9.906	–	0	1
No degree	Educational level is no degree or still a pupil (1 = yes; 0 = no)	1.442	–	0	1
Primary degree	Educational level is a primary degree (1 = yes; 0 = no)	35.999	–	0	1
Advanced levels	Educational level is below advanced levels (1 = yes; 0 = no)	24.988	–	0	1
University	Educational level is university entry degree (i.e., advanced levels; 1 = yes; 0 = no)	35.330	–	0	1
Income	Personal monthly net income in purchasing power parities (in 1000)	2.431	1.178	0.160	5.403
Country	Respondent is from ...	–	–	–	–
England	England (1 = yes; 0 = no)	03.930	–	0	1
France	France (1 = yes; 0 = no)	05.123	–	0	1
Germany	Germany (1 = yes; 0 = no)	33.789	–	0	1
Italy	Italy (1 = yes; 0 = no)	4.987	–	0	1
Norway	Norway (1 = yes; 0 = no)	9.397	–	0	1
Poland	Poland (1 = yes; 0 = no)	5.971	–	0	1
Switzerland	Switzerland (1 = yes; 0 = no)	36.808	–	0	1

SC social capital, SD standard deviation, min minimum, max maximum

volunteer in their grassroots football club (Table 1). The share of volunteers among able-bodied (82.2%) and respondents with disabilities (83.7%) is similar (Table 2). On average, respondents spent 28.4 h per month on volunteering, with respondents with disabilities

spending more time on volunteering ($M = 34.5$) than able-bodied individuals ($M = 27.9$). However, the standard deviation for volunteers with disabilities is higher ($SD = 43.807$) than for able-bodied volunteers ($SD = 37.037$ h). In the full sample, 7.5% ($n = 1556$) of respondents

have some form of disability. Specifically, 6.4% have a physical disability ($n = 1312$), 0.6% ($n = 133$) a mental disability, and 0.5% ($n = 111$) have both types of disabilities.

Turning to social capital within sports clubs, respondents rated the number of friends in the clubs more than average ($M = 3.916$; i.e., category 4 = more than average; Table 1). Comparing able-bodied and respondents with disabilities, there is only little variation in the mean perception with respondents with disabilities stating a mean of 3.8 compared to 3.9 for able-bodied individuals (Table 2). Respondents keep routine contact to some sports club members ($M = 3.369$; category 3 = some; Table 1). The means for able-bodied (3.37) versus participants with disabilities (3.38) differ only slightly (Table 2). Respondents stated that some or most sports club members who would definitely help them upon request ($M = 3.647$; 3 = some, 4 = most; Table 1). Again, respondents with disabilities stated a slightly lower mean of 3.6 compared to their able-bodied counterparts (3.7; Table 2). Finally, respondents trust between some and most sports club members, according to a mean of 3.591 (Table 1). With 3.6 versus 3.5, the means for able-bodied versus respondents with disabilities are similar. The corresponding standard deviations of all social capital items are only slightly higher for respondents with disabilities than for able-bodied individuals (Table 2).

With respect to individual characteristics and educational level, 13.2% of respondents are female, 9.9% have a foreign nationality, and respondents are on average 42 years old. The majority of respondents have a primary degree (36.0%), followed by a university degree (35.3%), advanced levels (25.0%), or no degree (1.4%; Table 1). The average monthly personal net income per respondent measured in purchasing power parities is 2.431 which is equal to approximately 3,574 Euros/month. Able-bodied respondents earn on average more ($M = 2.456$ equal to approximately 3,610 Euros/month, $SD = 1.186$) than respondents with disabilities ($M = 2.123$ equal to approximately 3,120

Table 2 Comparison of mean values and standard deviations (SD) for the able-bodied and disabled subsamples

Variable	Able-bodied (n = 19,078)		Disabled (n = 1,556)	
	Mean	SD	Mean	SD
SC friends	3.924	1.177	3.820	1.244
SC contact	3.367	0.827	3.383	0.884
SC help	3.653	0.834	3.572	0.907
SC trust	3.595	0.852	3.541	0.898
SC index	3.635	0.680	3.579	0.732
Volunteering	0.822	–	0.837	–
Volunteering hours	27.859	37.037	34.515	43.807
Disability	0.000	–	1.000	–
Physical disability	0.000	–	0.843	–
Mental disability	0.000	–	0.085	–
Both disabilities	0.000	–	0.071	–
Female	0.130	–	0.164	–
Age	41.638	14.126	48.900	14.650
Foreigner	0.101	–	0.079	–
No degree	0.014	–	0.015	–
Primary degree	0.353	–	0.449	–
Advanced levels	0.251	–	0.240	–
University	0.360	–	0.271	–
Income	2.456	1.186	2.123	1.024
SC social capital				

Euros/month, $SD = 1.024$; **Table 2**). The majority of respondents come from Switzerland (36.8%), followed by Germany (33.8%), Norway (9.4%), Poland (6.0%), France (5.1%), Italy (5.0%), and England (3.9%; **Table 1**).

Disability and volunteering

Answering the first research question, **Table 3** displays the models estimating the effect of being disabled or not on volunteering. Being disabled is significantly negatively related to the probability to volunteer, and this likelihood is 2.9% lower than for able-bodied individuals according to the average marginal effect (model 1). Looking at the different disability types, only being physically disabled is significantly negatively associated with the probability to volunteer, with an average marginal effect of 2 percentage points (model 2). These results support hypothesis H1. In the linear regressions, being disabled is significantly positively associated with the number of monthly volunteering hours. In model 4, having a physical disability is the only disability

type that is significantly positively associated with monthly volunteering hours.

Disability and social capital in sports clubs

Answering the second research question, **Table 3** (models 5–6) also displays the regression analyses on the effect of the three disability types on the social capital index, respectively. In model 5, physically disabled volunteers have a significantly lower social capital than able-bodied volunteers. Likewise, mentally disabled respondents have a significantly lower social capital within sports clubs than their able-bodied counterparts (model 5). Having both disabilities is not significantly related to social capital. Thus, hypothesis H2 stating that individuals with disabilities have lower social capital than able-bodied individuals is partly supported for respondents with either a physical or mental disability.

Disability, sport volunteering, and social capital in sports clubs

Referring to the third research question, **Table 3** displays the results for the moderating effect of volunteering hours on the dependent variable social capital in model 6. Results reveal a significant interaction of having both disabilities with spending a high number of hours of volunteering per month on the social capital index. Therefore, hypothesis H3 is partially supported for volunteers having both types of disabilities.

In **Fig. 1**, we illustrate the slopes of the significant interaction effect between volunteers having both disabilities (or not) and monthly volunteering hours. The figure reveals that the slope of volunteering hours between volunteers with both disabilities is significantly different from those without both disabilities. For volunteers with both disabilities, we observe a greater slope in social capital index with more volunteering hours per month compared to volunteers without both disabilities.

Discussion

The purpose of this study was to examine the link between having a disability, sport volunteering, and the level of social capital in terms of bonding capital in European grassroots football. The analysis is based on a large-scale sample of adult volunteers and football club members from seven European countries. Regarding the first research question, we identify a lack of volunteers with (either physical or mental) disabilities in sport clubs as they have a significantly lower probability to volunteer than able-bodied individuals. The negative correlation of having a disability and the likelihood to volunteer is comparably small with 2.9 percentage points, which might be caused by the similar distribution of able-bodied and volunteers with disabilities in our sample. The percentage of volunteers with disabilities (83.7%) is only slightly higher than the percentage of able-bodied volunteers (82.2%) in our sample. This finding is in line with previous literature on social inclusion (Collins & Kay, 2014; Kingsley & Spencer-Cavaliere,

Table 3 Logistic and linear regressions for the dependent variables volunteering, number of monthly volunteering hours, and social capital (SC) index

	(1)	(2)	(3)	(4)	(5)	(6)
	Volunteering	Volunteering	Volunteering hours	Volunteering hours	SC Index	SC Index
Disability	-0.029** (0.011)	-	2.823* (0.826)	-	-	-
Physical disability	-	-0.020* (0.010)	-	2.662* (0.773)	-0.051* (0.017)	-0.073* (0.027)
Mental disability	-	-0.041 (0.046)	-	2.169 (5.430)	-0.167* (0.055)	-0.138 (0.084)
Both disabilities	-	-0.102 (0.067)	-	5.813 (3.651)	-0.168 (0.090)	-0.266 (0.113)
Volunteering hours	-	-	-	-	0.001** (0.000)	0.001** (0.000)
Physical disability × Volunteering hours	-	-	-	-	-	0.001 (0.000)
Mental disability × Volunteering hours	-	-	-	-	-	-0.001 (0.002)
Both disabilities × Volunteering hours	-	-	-	-	-	0.002* (0.001)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.994** (0.287)	-0.991** (0.288)	29.28*** (6.711)	29.25** (6.808)	4.164*** (0.119)	4.166*** (0.117)
Observations	20,634	20,634	16,989	16,989	16,989	16,989
Adjusted Mc Fadden's R ²	0.125	0.125	-	-	-	-
R ²	-	-	0.101	0.101	0.050	0.050

Note: Displayed are average marginal effects (Models 1 + 2) and unstandardized coefficients (Models 3–6); cluster robust standard errors in parentheses; individual controls are Female, Age, Foreigner, Primary degree, Advanced levels, University (ref.: No degree), Income
 *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

2015; Misener & Darcy, 2014). Building on this still negative finding, we emphasize the need for sport clubs to consider and rethink volunteering of individuals with disabilities as an effective individual-level leisure activity to integrate them into sport organizations (Elmose-Østerlund et al., 2019). However, the question remains regarding the extent to which barriers for access to volunteering (Bükers & Wibowo, 2020; Kitchin & Howe, 2014; Wicker & Breuer, 2014) can be overcome for individuals with more severe (e.g. mental) disabilities (Albrecht et al., 2019; Sørensen & Kahrs, 2006).

Although individuals with a physical disability have a significantly lower probability to volunteer than able-bodied individuals, we find that individuals with a physical disability volunteer significantly more hours than able-bodied volunteers. Taking both findings together, it seems that the hurdle to volunteer in sports might be perceived higher by individuals with disabilities compared to able-bodied individuals. However, once they decided to volunteer in sports, the engagement of people with disabilities seems to be higher for different reasons. One reason for this finding could be that the underrepresented group of phys-

ically disabled sport volunteers feels to be needed in the community of able-bodied sport volunteers, thus creating a value for sport organizations (Miller, Schleien, Brooke, & Merrill, 2005; Stroud et al., 2005; Yanay-Ventura, 2019). However, previous studies for able-bodied individuals showed that unpaid voluntary work in organized sports is substitutive to paid work (Lesch, Kerwin, Thormann, & Wicker, 2022; Scharfenkamp, Wicker, & Frick, 2023). As the labour force participation of individuals with disabilities is comparably low to that of able-bodied individuals (General Federal Employment Agency, 2022), this finding is an indication that sport volunteering substitutes time spent on paid work for individuals with disabilities. Another interpretation could be that volunteers have to spend more hours on volunteering than able-bodied volunteers as they need more time to fulfil the same task.

With respect to the second research question, our findings are mixed. The finding of a positive link between volunteering and social capital in football clubs for disabled individuals is in line with the findings for able-bodied individuals of Darcy et al. (2014) and Kay and Bradbury (2009). We interpret this

finding similar to Albrecht et al. (2019) showing that volunteers with disabilities seize the opportunity to better understand how a club works and to network with other club members. In line with our theoretical considerations, we find that respondents with either physical or mental disabilities evaluate their level of social capital significantly lower than respondents without, hence indicating that having a disability represents a constraint of building social capital in football clubs. This finding echoes previous literature reporting a lower social capital of people with disabilities compared to able-bodied individuals (Llewellyn et al., 2013; McPhedran, 2010). In line with Albrecht et al. (2019), who found a similar result for volunteers with intellectual disabilities and a lower perceived understanding or acceptance, we consider the comparably low presence of respondents with mental disabilities (0.6%; 6.4% with physical or 0.5% with both disabilities) in our sample and the resulting access problem to sport clubs (Sørensen & Kahrs, 2006) to be one possible reason for the perceived lack of inclusion.

Answering our third question, the interaction terms of volunteering hours and disability is significantly positive for vol-

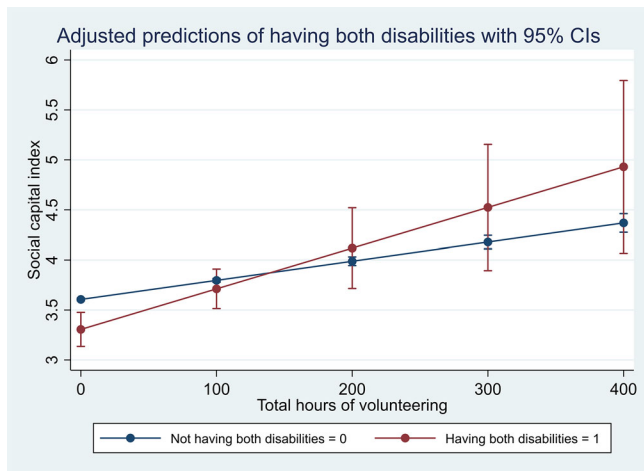


Fig. 1 ◀ Simple slope analysis of monthly volunteering hours and having both disabilities (or not) on social capital index (dependent variable). Source: own compilations

unteers with physical and mental disabilities: volunteers with both types of disabilities who spend more hours on volunteering have a significantly higher level of social capital than their able-bodied counterparts. The finding suggests that volunteering helps to mitigate negative social outcomes resulting from having both types of disability. Put differently, once these individuals with disabilities volunteer in sport, their social capital reaches the level of able-bodied individuals. This finding indicates that volunteering helps to compensate the lower evaluation of social capital for this group. Our findings also contribute to those of Albrecht et al. (2019) and Elmoose-Østerlund et al. (2019) by showing that while having a disability is significantly negatively related to the probability to volunteer, volunteers with both disabilities have a significantly higher social capital if they invest much time in volunteering. Collectively, sport volunteering can be considered a leisure activity for social participation of individuals with disabilities that sports clubs benefit from as more social capital can be unfolded in the sports system, which in turn also benefits able-bodied individuals (Darcy et al., 2014). However, the associations between the variables observed should not be interpreted causally as the survey data are only cross-sectional. Thus, another interpretation of this finding could be that individuals with higher social capital feel more comfortable to volunteer more hours than individuals with low social capital since they, for example, feel well respected in the sports club and want

to spend more time with their fellow club members.

Conclusion

This study indicates that individuals with disabilities are less likely to volunteer in sport (football) clubs and have a lower level of social capital, but that the negative effect on social capital can be moderated by the number of monthly volunteering hours. Thus, sport volunteering can be considered an adequate leisure activity for the social participation and inclusion of individuals with disabilities.

The practical implications of the finding that individuals with disabilities have a significantly lower probability to volunteer are that the acquisition and inclusion of individuals with disabilities into voluntary work is still challenging for sports clubs. Certain access barriers might be overcome by explicit initiatives to uncover and enforce the connecting benefits of volunteering for individuals with disabilities with able-bodied individuals like the project SEDY2 (“Sport Empowers Disabled Youth”, for more information see SEDY2, 2024). However, for the group of sport volunteers, who support the sports community, there is evidence that more hours spent with this leisure activity significantly improve individual perceived social capital in sports clubs. To yield potential benefits for sports clubs by improving access for individuals with disabilities to volunteering, our findings suggest that it might be important for sports clubs to both motivate club members with disabilities to volunteer

in sport as such, and (simultaneously) giving them enough time to involve in club activities to unfold social capital.

This study contributes to previous literature in two ways. First, it provides initial quantitative evidence on the perceived social capital of sport volunteers in the context of European grassroots football and the role of different types of disabilities. Second, we provide a theoretical underpinning linking disabilities with volunteering and social capital, including new arguments for a possible moderating role of sport volunteering. This work enriches previous literature on volunteers with disabilities and the social capital of sport volunteers.

However, the design of this study includes several limitations. First, the analysed data were gathered before the COVID 19 pandemic, potentially compromising the relevance for post-pandemic years. An avenue for future research might be to compare these prepandemic findings with another cross-sectional survey in postpandemic years. Second, the analysed survey data are cross-sectional, meaning that only correlative rather than causal relationships can be tested. Due to the cross-sectional data, we are not able to rule out reverse associations from our findings. Future research might consider panel data to see whether our correlative findings hold in a causal analysis. Third, the large sample size might cause significances of rather small effects. However, given the small share of respondents with disabilities, large samples are necessary for a meaningful analysis of this subgroup. Future studies might nevertheless test the robustness of our findings for sports clubs in other sports. Lastly and as we focus on bonding capital as one form of social capital, future studies might investigate other facets of social capital like bridging and linking capital for individuals with disabilities and sport volunteering.

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Declarations

Conflict of interest. K. Scharfenkamp, P. Wicker, L.E. Davies and declare that they have no competing interests.

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