

VOLUNTEERS WITH DISABILITIES AT THE LONDON 2012 OLYMPIC AND PARALYMPIC GAMES: WHO, WHY, AND WILL THEY DO IT AGAIN?

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People with disabilities are often the recipients of volunteer services but are rarely considered as a potential volunteer resource, such as in sport events where volunteers are an essential component of major sport event operation and legacy potential. For London's 2012 Olympic and Paralympic Games, there was a determined effort by the Organizing Committee to recruit people with disabilities to be *Games Makers* (i.e., volunteers). This exploratory research investigated 786 London 2012 volunteers who self-identified as having disability or access needs. The research design involved an online questionnaire examining their motivations for volunteering, their experiences, their likelihood to continue volunteering, and their sociodemographic profile. This article contributes to the literature by examining the motivations of people with disability volunteering at a mega-sport event, as this has not been done previously. The factor analysis identified eight components: transactional; altruistic; it's all about the games; volunteering community; rewards; availability; variety; and application. The solution highlighted the duality of human capital-related transactional components where the individual wanted to improve their skills and the altruistic components of giving back and it's all about the games experience. The discussion examined these components in comparison to other mega-event volunteers to examine commonalities and contrasts.

Key words: Disability; Volunteers; London 2012; Motivations; Legacy

Introduction

People with disabilities (PwD) are often seen as the recipients of volunteer services, but the organizers of the London 2012 Olympic and Paralympic Games (London 2012) believed they were

a valuable potential resource. Therefore, PwD became central to a strategic push within the UK to change the attitudes and behaviors of their citizen's towards PwD¹ as part of their "Legacy Games" focus [e.g., Department for Culture Media and Sport (DCMS), 2012; Office for Disability

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Issues (ODI, 2011]. It was thought that this initiative would support the integration of PwD into the wider community and thus leave a social legacy of increased volunteering and social inclusion from the Games that would benefit all (Volunteering England, 2008). The focus of London 2012 to include PwD as volunteers was expressed by Lord Sebastian Coe, chair of the 2012 London Organizing Committee for the Olympic Games (LOCOG) (on *That Paralympic Show*, Channel 4, 2010) as, “we want [the] volunteer workforce to be completely diverse. We want people with a disability to feel that this is open to them . . . we are making a lot of effort to make sure that that happens.” This “effort” made the London 2012 Games different from previous Olympic and Paralympic Games as, for the first time, an organizing committee was actively pursuing a strategy of targeting, recruiting, and supporting PwD to volunteer for both events—the Olympic and the Paralympic Games. The initiative was also supported by the strategic appointment of Baroness Grey-Thompson, an 11-time Paralympic gold medalist and thus a person with a disability, as the Vice Chair of the 2012 organizing committee’s sports advisory group (Pring, 2012).

To support the recruitment of PwD, PwD were able to apply 7 weeks earlier than other volunteers, from July 27, 2010 (LOCOG, 2010), and all PwD were guaranteed an interview if they met the specifications set out for volunteers (LOCOG, 2012). By January 2011, 8,000 nominations had been received from PwD to be volunteers at the London 2012 Olympic and Paralympic Games (“Thousands Volunteer,” 2011), some of whom stated that they were first-time volunteers (“Six Thousand Disabled People,” 2010). This represented 3% of the 250,000 applications for the 70,000 positions. Of the 8,000 applications, 3,500 were selected who met the selection criteria for volunteers (LOCOG, 2009, 2012), a 44% success rate, compared to 28% for the nondisabled volunteers. Thus, approximately 5% of the total number of volunteers were PwD, which was at the bottom of the 5%–7% target expressed by Baroness Grey-Thompson (“London 2012: Thousands of Disabled,” 2012), but well short of the approximately 19% of Great Britain living with disability (Department for Work and Pensions, 2012). This lower rate may reflect issues identified

at the Sydney 2000 Olympic and Paralympic Games where volunteers with disability faced a number of significant discriminatory practices regarding selection, the lack of inclusive practice within the volunteering experience, and extra costs of participating that other volunteers did not face due to the limited proportion of accessible public transport to games venues (Darcy, 2003). All Sydney 2000 volunteers, regardless of disability, were responsible for providing their own transport to and from training and the event, as well as accommodation during those periods (Cashman & Darcy, 2008).

Yet, as this article will show, there is minimal research examining volunteering and disability generally and almost no research that examines volunteering and disability at mega-events. Mega-events such as the Olympics and Paralympics have complex management requirements with volunteering identified as central to both events (Darcy, Frawley, & Adair, 2017; Frawley & Adair, 2013). As such, this article seeks to address this gap in the literature by using the London 2012 volunteers to examine those who identify as having a disability to learn more about who they were, what motivates them, and what were their likely intentions to continue volunteering. The article firstly reviews the literature on volunteering and disability, disability and volunteering in sport, and sport event volunteer motivations, before examining the research design, findings, and discussion.

Literature Review

Volunteering and Disability

Volunteers, across all areas of society, are important contributors in many economies. For the UK, it has been suggested that annually more than 20 million people contribute over 100 million hours estimated to be worth more than £40 billion to the economy (Davis Smith, 2013). Yet, it is not clear the extent to which these figures include or exclude volunteers with disability. Lukka and Ellis (2001) suggested that volunteering is a Western construct that serves to exclude PwD in part as volunteering is promoted as a service-delivery model, embedded in the relationship between helper and the helped, and the cared for rather than the carer, and that, “only rarely are disabled people seen as a resource,

with the potential to make valuable contributions society as volunteers” (Lukka & Ellis, 2001, p. 39). Kay and Bradbury (2009) and Walsh and Hampton (2011) also support the view that PwD are primarily perceived as receivers of voluntary assistance from others and not as providers of service.

In the decade to 2011, the level of formal and informal volunteering in the UK by PwD remained constant at around 22%–23%, only slightly lower than the 24%–25% for the general population (Department for Communities and Local Government, 2010, 2011; ODI, 2008, 2014). A difference was noted between involvement in formal volunteering (i.e., provided via a club, organization, or group) versus informal volunteering (i.e., provided by an individual) where, “Disabled people were equally as likely as the general population to engage in formal volunteering activities (13% volunteered at least monthly). However, disabled people were less likely than the general population to engage in informal volunteering” (Williams, Copestake, Eversley, & Stafford, 2008, p. 47). The limited research investigating PwD as volunteers suggests they are engaged in volunteering across a range of activities and that, although there tended to be positive experiences, a sizable proportion of PwD were experiencing problems in the volunteering environment as they did with other aspects of citizenship including accessibility, lack of reasonable adjustments, and negative attitudes (SCOPE, 2005).

Motivations to volunteer come from a range of factors, both extrinsic and intrinsic. The motivations of PwD who volunteer suggests that the motivations to volunteer may be similar to the broader population where 53% were motivated by wanting to improve things or help people (Low, Butt, Paine, & Smith, 2007a). Other reasons were that the volunteers considered the cause to be important (41%) and that they had more spare time (41%) (Low et al., 2007a). For PwD, or those with long-term illness, 39% were motivated when they “saw a need in the community” (Low et al., 2007b, p. 4).

Disability and Volunteering in a Sport and/or Event Context

Not only is volunteering a major contributor to many economies, it is essential to many sports and

sport events (Dickson, Terwiel, & Buick 2017; Doherty, 2006). Just as in the broader literature on volunteering and disability, there is limited research in the event and sport literature on the needs and involvement of PwD. Some sport research has identified the benefits of sport participation for PwD including a sense of belonging, increased self-identity, and health benefits (DePauw & Gavon, 2005). Other research has noted a mix of interpersonal, intrapersonal, and structural constraints/barriers to participation for PwD (Darcy & Dowse, 2013; Darcy, Lock, & Taylor, 2017; Dickson, Darcy, Johns, & Pentifallo, 2016; Gaskin, Andersen, & Morris, 2010; Groff, Lundberg, & Zabriskie, 2009; Martin & Whalen, 2012; Patel & Greydanus, 2010; Sotiriadou & Wicker, 2014).

Although the literature on volunteers in sporting and event contexts is considerable, most research of PwD involves them as recipients of volunteering services (e.g., Khoo & Engelhorn, 2007, 2011). As with the broader volunteer literature, the research on volunteers who have disabilities and/or access needs as providers of service is lacking. Further, Fitzgerald and Lang’s (2009) comprehensive literature review of volunteering, disability, and sport indicated that “no specific data could be found in relation to the motivations of disabled people to volunteer” (p. 26), and that “data on socio-demographic profile of volunteers who have a disability, and on the experiences of disabled volunteers is relatively rare” (p. 30). Furthermore, no research has investigated the motivations, volunteering experiences, or future volunteering intentions of PwD in the event literature.

The limited research on the intersection between sport events research and disability has focused on disability sports, where, again, PwD were the recipients of volunteer services and not the providers (e.g., Brooke-Holmes, 2005; Kay & Bradbury 2009; Khoo & Engelhorn, 2007, 2011; Surujlal, 2010). Ralston, Lumsdon, and Downward (2005) studied the volunteers at the Manchester 2002 XVII Commonwealth Games where disability sports were integrated (Misener & Darcy, 2014). Here they noted that of their 698 responses, 6% had some form of disability, but there was no further analysis of this group. This limited research demonstrates that PwD have similar volunteer participation levels and similar motivations. Yet, they have not been the focus of research that explores their needs, interests,

and experiences as volunteers in sport event contexts. The next step is to consider the broader sport event volunteer motivation literature, in which this study is located.

Sport Event Volunteers' Motivations

Understanding sport event volunteer motivations can help with the recruitment, management, and retention of event volunteer for future volunteer situations, that is, the legacy of sport event volunteering, that may be facilitated through focusing upon volunteer satisfaction (e.g., Dickson, Terwiel, et al., 2017; Farrell, Johnston, & Twynam, 1998). There is a growing body of literature on sport event volunteers' motivations (e.g., Dickson, Benson, Blackman, & Terwiel, 2013; Dickson, Benson, & Terwiel, 2014; Dickson, Darcy, Edwards, & Terwiel, 2015; Farrell et al., 1998; Giannoulakis, Wang, & Gray, 2008; Hallmann & Harms, 2012; Khoo & Engelhorn, 2007, 2011; Love, Hardin, Koo, & Morse, 2011; Strigas & Jackson Jr., 2003; Twynam, Farrell, & Johnston, 2002). However, it has previously been noted that some of the limitations of this research inhibits comparison between events. Limitations include: lack of comparative research across different types of event and the scale of events; diversity in the scales/instruments used; small sample sizes relative to the number of motivational items; lack of longitudinal (pre- and postevent and across different events) research; and, where principal component analysis (PCA) has been utilized, differences in the loadings applied (Dickson et al., 2013; Dickson et al., 2015; Hallmann & Harms, 2012). Also, given the previous examination of the literature, to this may be added the lack of research on underrepresented volunteer groups such as PwD.

A further consideration when comparing results across events is the differences in timing of the data collection (before, during, or after the event), and whether the sample is representative of the population (e.g., for a multisport event, are volunteers within one sport venue representative of all the event's volunteers?) (e.g., Giannoulakis et al., 2008).

Farrell et al.'s (1998) special event volunteer motivation scale (SEVMS) is an instrument that has been adapted and used across a range of events (single sport and multisport) as well as scale (mega-events to national events) allowing for some level of comparison. The original 28-item SEVMS drew upon the research of Cnaan and Goldberg-Glen (1991) and Getz (1991), and was applied as part of a longitudinal study across a range of events (Farrell et al., 1998). It has since been adapted and applied to other Tier 2 or small-scale events (e.g., Khoo & Engelhorn, 2007, 2011; Twynam et al. 2002). Giannoulakis et al. (2008) developed a 24-item Olympic-specific instrument that drew upon similar work (i.e., Cnaan & Goldberg-Glen, 1991; Getz, 1991) as well as Beard and Ragheb (1980) and Clary et al. (1998). A demonstration of the diversity of a sample of the SEVMS research and the remaining gaps is shown in Figure 1; none of this research has explored PwD. As previously mentioned, the variation in the instruments used, except for Khoo and Engelhorn (2007, 2011), means each of these studies could be viewed as individual case studies from which it would be difficult to develop a coherent, or generalizable, theory of volunteer motivation for special events, mega-events, or major sport events.

In SEVMS-related research (Fig. 1), the most important motivation items for Farrell et al.'s

		EVENT TYPE	
		Single sport events	Multi-sport events
EVENT SCALE	Mega		Dickson et al. (2013; 2014)
	International	Twynam et al. (2002)	Dickson et al. (2015)
	National	Farrell et al. (1998)	Khoo et al. (2007; 2011)
	Local		

Figure 1. SEVMS-linked research: Event types and scales.

(1998) Canadian study of a single sport event were those under the purposive factor (e.g., making the event a success; doing something worthwhile and put something back in to the community). In contrast, Khoo and Englehorn (2007) in their Malaysian study of a multisport event reported higher scores for those items in the solidary factor (e.g., gaining some practical experience; obtaining an educational experience; broadening horizons). For their American study of a multisport event, Khoo and Englehorn (2011) revealed higher scores for those items found in the purposive factor, similar to the Canadian studies of Farrell et al. (1998). For the Australian study of a Tier 2 multisport event, the most important items were similar to the purposive items but were classified as *giving back* (Dickson et al., 2015). The notable difference for research on Tier 1 multisport events, (i.e., the Olympic and Paralympic Games) was that the most important item was “It was chance of a lifetime” (Dickson et al., 2013; Dickson et al., 2014). For Sydney 2009, it only ranked as number 14 when volunteers were surveyed prior to the event. This summary suggests some variability in volunteer motivations by the type (multi vs. single sport), scale (Tier 1 vs. 2), and location (i.e., country) of the event that warrants further exploration. A limitation of all of these studies is that none of these studies explored PwD as volunteers.

While this is not an article broadly about the legacy of London 2012, volunteering is one of those areas that is said to be a social outcome of Olympic and Paralympic games. Further, as London 2012 was referred to as the Legacy Games, it is worth stocktaking the body of knowledge on legacy. Criticisms of legacy have been that they have been post hoc rather than strategic, and done before or immediately after the games. To counter this criticism, we briefly review legacy articles published since the beginning of 2014, which is 2 years after the games concluded. The major articles published since that time can be categorized into: criticism of legacy and reporting women’s sport (Packer et al., 2015); tourism legacy and program theory (Dickson, Misener, & Darcy, 2017; Weed, 2014); sustainability and the sustainability of host cities (Fussey, Coaffee, & Hobbs, 2016; Gold & Gold, 2015); legacy cost of delivering the games (Nichols

& Ralston, 2015); health and physical activity levels for different groups (Müther, Williamson, & Williamson, 2014; Thompson et al., 2015); complex projects and events (Grabher & Thiel, 2015; Raco, 2014; Thiel & Grabher, 2015); impacts and legacies for small London creative organizations (Pappalepore & Duignan, 2016); a critique of the lack of legacy and PwD (Brittain & Beacom, 2016); and volunteering legacies (Dickson et al., 2014).

Research Questions

To begin to address the gaps in the literature on volunteering by PwD at sport events upon which sport-event managers may build and learn this exploratory research sought to understand:

1. What is the sociodemographic profile of volunteers with disabilities?
2. What are the motivations for volunteering of volunteers with disabilities?
3. What is the legacy potential of the Game as expressed through their intentions about volunteering further in the future?

Method

To address the research questions an online anonymous survey was distributed by LOCOG to all 70,000 volunteers using best practice for questionnaire and online questionnaire design (Veal & Darcy, 2014). To determine what, if any, access needs volunteers had, they were asked “During your London 2012 Games volunteer experience did you have any access requirements?” The five responses were: Mobility; Vision; Hearing; No access requirements; and I do not have a disability. Those volunteers who that had access needs and/or a disability are analyzed here ($n = 786$). The research was supported by the International Paralympic Committee, approved by the Ethics Committee of the host Universities and facilitated by LOCOG. The article addresses limitations previously discussed related to the instrument consistency, sample sizes, and PCA loadings, as well as surveying across all event functional areas. This article does not address the issue of consistency of timing of the research (i.e., pre- or postevent survey).

Research Instrument

The motivations items within the research instrument drew upon previous sport event volunteer motivation studies that have used adaptations of the SEVMS (Dickson et al., 2013; Dickson et al., 2014; Dickson et al., 2015; Farrell et al., 1998; Giannoulakis et al., 2008; Khoo & Engelhorn, 2007, 2011; Twynam et al., 2002). This prior research has been across a range of single-sport and multisport events ranging from national to mega-sport events and in a variety of countries. Of the 36 motivation items, 20 draw upon the original SEVMS and 15 from Giannoulakis's (2008) work (note there is some overlap in these previous instruments given their similar origins).

As this study is imbedded within a longitudinal study of the volunteering legacy from mega-sport events, the instrument is the same as the one used previously, thus addressing the opportunity for research across different types and scale of event that uses the same instrument, facilitating direct comparison. The previous events are the Vancouver 2010 Olympic and Paralympic Winter Games and the Sydney 2009 World Masters Games (Dickson et al., 2013; Dickson et al., 2014; Dickson et al., 2015). For Sydney 2009 and Vancouver 2010, Cronbach's α for the components with three or more items loading ± 0.5 for both events were: It's all about the Games (0.83; 0.77); Transactional (0.82; 0.88); Variety (0.67; 0.76); Giving back or Altruistic (0.86; 0.84). Levels above 0.7 are satisfactory while 0.8 is preferable (Pallant, 2011).

To facilitate comparisons with previous research the only change to the motivation items was some rewording to reflect the different event and location. In line with LOCOG's protocols the 36 motivation items were scored on a 5-point Likert scale (from 1 = *Strongly agree* to 5 = *Strongly disagree*), the order of the scale was later recoded to 1 = *Strongly disagree* to 5 = *Strongly agree* to be consistent with the previous research. Additionally, the team and functional area labels was changed to reflect language used by London 2012. Future volunteering intentions used the same question structure as used previously and was indicated across six responses: *Much more*, *More*, *Same amount*, *Less*, *Much less*, and *Don't know*.

The target population for the broader research project, in which this research on PwD was embedded, was all 70,000 Games Makers of London 2012. After obtaining approval from the IPC Sports Science Committee the researchers negotiated with LOCOG to have a hyperlink to the survey to be distributed via e-mail by LOCOG's Research Department as part of the overall games evaluation process. The hyperlink to the online survey underpinning this research was e-mailed to all 70,000 volunteers by LOCOG 2 days after the Paralympics' closing ceremony and 1 day after a large thank-you parade held through the streets of London, in what may be called the "after glow" of the Games. Five days later the survey closed with no further reminders. There were 11,451 responses (response rate = 16.4%). The sample discussed in this article are the 786 who self-identified as either having a disability or mobility, vision, or hearing access needs (6.9% of the responses).

Analysis

The factor analysis method of PCA was used as it enables exploration of the underlying structures of the items, and is particularly relevant where there is a weak literature/theoretical basis (Stevens, 2002), as is the case when researching volunteers with disabilities. PCA was chosen over an exploratory factor analysis, as the research is situated within a constructivist epistemology and an interpretivist theoretical perspective that is looking "for culturally derived and historically situated interpretations of the social real-world" (Crotty, 1998, p. 67). This allows the participants' responses to determine the factor structure and not the researchers' preconceived ideas or models (c.f., Suhr, 2006). Although a positivist view suggests there are "general laws" that apply to volunteering at sport events; it is the authors' contention that there are several notable differences between the context and participants presented in this research and previous research that has drawn upon the SEVMS (Fig. 1).

When analyzing a PCA, there are different views about the appropriate loadings to focus on; what is an appropriate sample size in relation to variable; or what components to retain given different item loadings (c.f., Hair, Black, Babin, & Anderson, 2010;

Stevens, 2002; Tabachnick & Fidell, 2007). Thus, following a review of the literature, in addition to retaining items with Eigenvalues greater than 1, a decision was made to: 1) focus on loadings $> \pm 0.50$ ensuring the results had practical significance (Hair et al., 2010); 2) exclude components with less than three variables as these may be considered to be weak or unstable (Costello & Osborne, 2005); and 3) all loadings are presented (not just those $> \pm 0.50$). The suitability of the motivation items for a PCA was confirmed via a Kaiser–Meyer–Olkin (KMO) value of 0.896 that exceeds the recommended value of 0.6 (Kaiser, 1970, cited in Pallant, 2011). Further, Bartlett's Test of Sphericity obtained statistical significance ($p < 0.001$) indicating the analysis was appropriate (Bartlett, 1954, cited in Pallant, 2011).

Results: Volunteers With Disability, London 2012

Although the research design draws upon an instrument with the same motivation scale that has

been used with similar events it is not possible to directly compare the results, as the other research does not separately identify results for volunteers with a disability. This in itself signifies the lack of emphasis placed on considering PwD within a volunteering context by mega-sport event organizations and researchers. Therefore, as indicated before, this study is the first study of its type to examine PwD at a mega-event in respect the research questions or in shorthand the Who? Why? and Will they do it again? The results are presented in this order.

Who? Profile of Volunteers With Disabilities

Of the 786 respondents, 15.6% had mobility access needs, 2.2% had vision access needs, 4.8% had hearing access needs, and 78.8% identified as having a disability but not requiring access support. Most respondents were female (58%), with nearly 66% over 45 years of age (Table 1). A chi-square test for independence indicated a significant

Table 1
Demographics

	Female	Male	Total PwD (<i>n</i> = 786)	Pearson Correlation (<i>df</i>) (<i>n</i> = 786)	Other Volunteers (<i>n</i> = 10,665)	Pearson Correlation (<i>df</i>) (<i>n</i> = 11,451)
Age group				0.021 (6)		0.202 (6)
16–18 years	0.7%	0.3%	0.5%		1.1%	
19–24	8.8%	7.2%	8.1%		10.0%	
25–34	13.7%	9.3%	11.8%		12.6%	
35–44	15.6%	11.1%	13.7%		14.6%	
45–54	23.3%	28.9%	25.7%		23.9%	
55–64	28.2%	27.4%	27.9%		27.3%	
>64	9.7%	15.7%	12.2%		10.5%	
Employment situation				0.017 (7)		<0.001 (7)
Full time	39.0%	44.9%	41.5%		50.1%	
Part time	19.6%	11.1%	16.0%		15.4%	
Casually	1.8%	1.8%	1.8%		1.5%	
Retired	20.3%	23.5%	21.6%		19.4%	
Fulltime student	6.6%	6.6%	6.6%		7.7%	
Fulltime carer/parent	2.4%	0.3%	1.5%		1.1%	
Looking for employment	5.9%	6.6%	6.2%		2.7%	
Other	4.4%	5.1%	4.7%		2.0%	
Volunteered in previous 12 months				0.099 (1)		0.001 (1)
Yes	86.8%	82.5%	85.0%		80.0%	
No	13.2%	17.5%	15.0%		20.0%	
Access requirements						
Mobility	17.6%	13.0%	15.6%	0.075 (1)		
Vision	2.0%	2.4%	2.2%	0.684 (1)		
Hearing	4.6%	5.1%	4.8%	0.749 (1)		
No access requirements, but with a disability	77.4%	81.0%	78.8%	0.183 (1)		

Table 2
Place of Residence

London	31.8%
South East (excluding London)	24.0%
East of England	8.1%
South West	7.5%
West Midlands	6.1%
East Midlands	5.5%
North West	4.7%
Yorkshire/Humberside	3.1%
Scotland	2.3%
Wales	1.9%
North East	1.3%
Northern Ireland	0.4%
I do not live in the UK	3.3%

association between gender and age [$\chi^2(6)$, $n = 786$, $p = 0.021$] and gender and employment situation [$\chi^2(7)$, $n = 786$, $p = 0.017$] (Table 1). Nearly a third of the 786 volunteered prior to the Games (31.6%), with 64% volunteering at the Olympics and 47% at the Paralympics, with 22% ($n = 173$) volunteering for both the Olympics and Paralympics.

Predominantly respondents were born in England (78.4%), then Europe (4.5%), and Africa (4.3%), with 85% indicating that they would identify as being from a white ethnic group. The main place of residence was London (31.8%) then the Southeast of the UK, excluding London (24.0%), the east of England (8.1%), and the Southwest of England (7.5%). Just 3% indicated that they did not live in the UK (Table 2). The accommodation during their volunteering was mostly their own homes (58.7%), followed by friends/family (19.8%), and then staying in a hotel or hostel (7.9%).

Almost 60% of respondents indicated they were in some form of paid employment (full time, part time, or casual). The 42% who were employed fulltime is three times the national average for PwD (Department for Work and Pensions, 2012). Although statistics for PwD are limited, research indicates that “in 2011, the average hourly wage rate for a disabled person was £11.78, nearly 10% lower than a non-disabled person (£12.88)” (Papworth Trust, 2012, p. 10). The median gross annual income in the UK for 2011 was £419 per week or just under £22,000 p.a. (Office for National Statistics, 2012a, 2012b), thus almost 55% of respondents were from households with household incomes higher than the national average (Table 3).

Respondents were asked about their volunteering in the 12 months prior to London 2012, with over 60% ($n = 498$) indicating that they had volunteered in that period. The most common contexts were: charitable groups (20.2% of all), educational settings (17.2%), sporting groups (15.3%), and sport events (15.0%) (see Table 4).

Exploring the main mode of volunteering (e.g., daily, weekly) and the hours volunteered during the previous 12 months revealed that their daily average was around 4 hr per day, 8 hr for weekly volunteers, 12 hr for monthly volunteers, and 61 hr for annual volunteers (Table 5). This contrasts with the much higher volunteer work intensity for London 2012 where a normal Games-time shift was 8 hr with a minimum of 10 shifts for the 17 days of the Olympics or 20 for both Games (LOCOG, 2010).

Table 3
Annual Household Incomes and Employment Status

	£0–£6,500	£6,501–£22,000	£22,001–£37,000	£37,001–£50,000	More Than £50,000	Prefer Not to Say	Total
Employed full-time (incl. self-employed)	0.5%	5.1%	9.3%	7.4%	13.2%	6.0%	41.5%
Employed part-time (incl. self-employed)	1.3%	3.7%	2.3%	1.8%	4.1%	2.9%	16.0%
Employed casually	0.1%	0.5%	0.6%	0.1%	0.1%	0.3%	1.8%
Retired or pensioner	0.8%	4.3%	5.9%	3.3%	2.8%	4.6%	21.6%
Fulltime student	1.9%	1.3%	0.9%	0.3%	0.5%	1.8%	6.6%
Fulltime carer or parent	0.3%	0.3%	0.4%	0.1%	0.1%	0.4%	1.5%
Unemployed and/or looking for employment	1.7%	2.0%	0.9%		0.1%	1.5%	6.2%
Other (please specify)	1.1%	1.7%	0.3%	0.3%	0.1%	1.3%	4.7%
	7.6%	18.8%	20.5%	13.2%	21.1%	18.7%	100.0%

Table 4
Context of Volunteering in Previous 12 Months

Volunteering Contexts	Those Who Volunteered in Previous 12 Months (<i>n</i> = 498) (63.4%)	All (<i>n</i> = 786)
Charities (e.g., Oxfam)	31.9%	20.2%
Schools or educational settings	27.1%	17.2%
Sporting clubs and associations	24.1%	15.3%
Sport events	24.5%	15.0%
Church or religious groups	18.3%	11.6%
Community association (e.g., Lions or Rotary)	15.1%	9.5%
Festival or cultural events (e.g., arts, entertainment)	13.5%	8.5%
Welfare organizations	12.0%	7.6%
Hospital or medical services	11.6%	7.4%
Environmental activities	7.2%	4.6%
Museums or galleries	4.2%	2.7%
Other		15.6%

Why? Motivations for Volunteering for London 2012

Table 6 highlights the top 10 motivations for volunteering by PwD. Those motivation items that rated most highly are the ones related to the uniqueness of the experience, their interest, and support of the event. These were the same top 10 as for the remainder of the sample (*n* = 10,665), with only the fourth and fifth items in reverse order.

A PCA was performed to explore the motivation data's underlying structure. An eight-component solution with Eigenvalues greater than 1 was identified, accounting for 58% of the variance. As previously suggested (Costello & Osborne, 2005; Suhr, 2006), components with less than three items were excluded: in this case, components 4 and 7 were excluded from further discussion (Table 7). The remaining six accounted for 49.4% of the variance.

The internal consistency of each of the scales was examined via Cronbach's (*CA*); levels above 0.7 are considered satisfactory, with levels above 0.8 being more preferable, though in exploratory research *CAs* as low as 0.5 may be acceptable

(Pallant, 2011). Thus, components 1 and 3 were considered good (i.e., >0.8). Components 2 and 5 were satisfactory (0.7–0.8), while components 6 and 8 were questionable (0.6–0.7). No improvement in reliability was achieved by reducing the number of items.

Components were labeled to reflect the items within and taking into account components identified in prior similar research (e.g., Dickson et al., 2013; Dickson et al., 2014; Dickson et al., 2015). Although component 1, entitled *Transactional*, accounted for 23% of the variance the item means indicate that these were not highly important in the motivating people to volunteer (component mean = 2.84). These motivation items reflect a degree of tradeoff between the giving of one's time in return or with the expectation that job or employment prospects may be enhanced.

In contrast the second component, *Altruistic*, had a higher mean and included four motivational items showing a more altruistic or community orientation than the more egocentric *Transactional* motivational items (9.6% of the variance, mean = 4.22).

Table 5
Average Volunteering Hours in 12 Months Prior to the Games

Mode of Volunteering	<i>n</i>	Range (hours)	Mean	<i>SD</i>
Daily: hours per day	24	1–10	4.0	2.07
Weekly: hours per week	239	1–96	8.1	8.74
Monthly: hours per month	161	1–120	12.1	16.13
Less than monthly: hours per year	74	3–1224	60.8	164.70

Table 6
Top 10 Motivations for Volunteering

	PwD (n = 786)	Other (n = 10,665)
5. It was the chance of a lifetime	4.86 (0.48)	4.87 (0.43)
30. I wanted to help make the Games a success	4.76 (0.49)	4.75 (0.50)
20. I am interested in the Games	4.58 (0.70)	4.57 (0.64)
4. I wanted to do something worthwhile	4.56 (0.68)	4.47 (0.71)
18. I wanted to be associated with the Games	4.54 (0.71)	4.54 (0.68)
1. I believe in the principles and values of the Games	4.49 (0.72)	4.44 (0.72)
3. I am proud of London and the UK	4.46 (0.80)	4.43 (0.77)
28. I have a passion for the Games	4.29 (0.89)	4.25 (0.88)
15. I wanted to use my skills	4.27 (0.83)	4.09 (0.94)
25. I have an interest in sport	4.16 (1.00)	4.22 (0.86)

Values are mean with *SD* in parentheses.

The third component, *It's all about the Games*, also has higher item means than for *Transactional* and reflects motivations that are driven by the uniqueness and significance of the event (6.1% of the variance, mean = 4.34). The fifth component, *Rewards*, has some similarities with *Transactional* with respect to the giving of time and skills in return for something more tangible and also in having lower item means (4.1% of the variance, mean = 2.94). The sixth component, *Application* (3.5% of the variance, mean = 3.73), with three items loading over 0.50, has the more altruistic focus of *Altruistic*. The eighth component, *Variety*, reflects previous components where it is about the receiving of something, in this case a more personal or social focus, in exchange for the volunteer's time and skills (3.1% of the variance, mean = 3.93). The fourth component *Volunteering Community* and the seventh component *Availability* were excluded from further analysis and discussion as there were only two items in each. Most components loaded onto similar factors as for Vancouver 2010.

Will They Do it Again? Future Volunteering Intentions

When thinking back to prior to the Games, 46% of respondents reflected they believed they would increase their volunteering, in any context, in the 12 months following the Games. After the Games this had dropped to 44% of respondents, which was a result of major shifts in each of the two pre-Games groups (i.e., expect to do more; expect to

do same or less), with around a third in each group having changed their minds (Table 8).

Building upon prior research that has indicated that future volunteering intentions are correlated with age and lack of prior volunteer experience, chi-square tests for independence were conducted for age, gender, previous volunteering, and income. The results indicated a significant association between gross household incomes and future volunteering intentions [$\chi^2(5)$, $n = 786$, $p = 0.045$] and previous volunteering [$\chi^2(1)$, $n = 668 = 15.321$, $p < 0.001$]. Those with gross household incomes lower than £6,500 per annum having more people indicating they would increase their volunteering in the future than any other income group, while those with no prior volunteering experience expected to increase their volunteering after the event (Table 9).

Discussion

The aim of this article was to research volunteers with a disability in terms of who they were, why they volunteered for the London 2012 Games, and the extent to which they planned to volunteer again in the future, that is, the social legacy potential, consequently contributing to the literature and practice of sports, events, volunteering, and disability. There is no doubt that mega-sport events such as the Olympic and Paralympic Games present a unique opportunity for disability organizations, event organizing committees, and governments to affect the perception and potential of PwD regarding social inclusion, both in terms of

Table 7
Principal Components Analysis—Pattern Matrix and Cronbach's Alpha

Component Label (Cronbach's alpha, % Variance)	Mean (<i>n</i> = 786)	<i>SD</i>	Pattern Matrix Load	Loaded Same as Vancouver 2010
1. Transactional (0.883, 23.08%)	2.84			
33. I wanted to gain experience that might lead to employment	2.56	1.32	0.835	Yes
16. I wanted to gain skills that I can use in future employment	2.94	1.32	0.835	Yes
32. I wanted to make job contacts	2.20	1.09	0.705	Yes
36. I wanted to gain skills that I can use in future volunteering situations	3.46	1.20	0.682	Yes
34. I wanted to establish contacts with experts from the same field	2.66	1.15	0.600	Yes
31. I wanted to gain knowledge of different languages and cultures	3.23	1.10	0.534	
26. <i>I wanted to make new friends</i>			0.473	
2. Altruistic (0.736, 9.55%)	4.22			
2. I wanted to give something back to London and the UK	4.09	0.99	0.818	Yes
3. I am proud of London and the UK	4.46	0.80	0.772	Yes
24. I wanted to put something back into the community	4.10	0.92	0.649	Yes
30. <i>I wanted to help make the Games a success</i>	4.76	0.49	0.391	
3. It's all about the Games (0.804, 6.08%)	4.34			
20. I am interested in the Games	4.58	0.70	0.840	Yes
28. I have a passion for the Games	4.29	0.89	0.831	Yes
25. I have an interest in sport	4.16	1.00	0.798	Yes
1. <i>I believe in the principles and values of the Games</i>	4.49	0.72	0.401	Yes
18. <i>I wanted to be associated with the Games</i>	4.54	0.71	0.328	
4. Volunteering community (0.550, 4.98%)	2.63			
7. Most people in my community volunteer	2.32	0.97	0.752	Yes
6. Volunteering is common in my family	2.95	1.30	0.730	Yes
12. <i>I was asked by a friend or family member who is a Games volunteer</i>	1.65	0.99	0.474	
5. Rewards (0.735, 4.07%)	2.94			
29. I would be able to attend a Games event	2.99	1.24	0.808	
27. It was an opportunity to meet elite athletes	2.90	1.19	0.651	
35. I wanted to gain official Games rewards (e.g., volunteer uniforms)	2.25	1.14	0.568	Yes
19. Being a volunteer at the Games is considered prestigious	3.63	1.08	0.559	Yes
6. Application (0.610, 3.50%)	3.73			
17. My skills were needed	3.66	1.00	0.724	Yes
15. I wanted to use my skills	4.27	0.83	0.718	Yes
14. I have past experience providing similar services	3.26	1.30	0.586	Yes
13. <i>The Games needed lots of volunteers</i>	4.15	0.91	0.400	Yes
7. Availability (0.566, 3.36%)	2.33			
9. I have more free time than I used to have	2.85	1.40	0.855	Yes
21. I did not have anything else to do with my time	1.80	1.07	0.770	Yes
8. Variety (0.640, 3.12%)	3.93			
11. I wanted to interact with others	4.16	0.88	-0.604	Yes
8. Volunteering at the Games would make me feel better about myself	3.66	1.10	-0.531	
10. I wanted to feel part of the community	3.98	0.99	-0.521	Yes
22. <i>I wanted to vary my regular activities</i>	3.51	1.13	-0.483	Yes
23. <i>I wanted to broaden my horizons</i>	3.85	1.00	-0.435	Yes
4. <i>I wanted to do something worthwhile</i>	4.56	0.68	-0.421	
5. <i>It was the chance of a lifetime</i>	4.86	0.48	-0.367	

Notes. Extraction method: Principal component analysis; Rotation method: Oblimin with Kaiser normalization; Rotation converged in 14 iterations. Italics indicates loadings <0.5. Likert scale 1 to 5.

sporting participation and volunteer/workforce participation. As such, London 2012 Games was used as an integral part of a major strategic push within the UK to change, long term, the attitudes and behavior affecting the PwD, thus demonstrating a desire to increase their integration into the wider

community. The London 2012 Olympic and Paralympic games were the first Games to strategically target, recruit, train, and support volunteers with disability. This agenda was certainly supported by the operational partnership between the IPC and the IOC (Legg & Gilbert, 2011). The IPC (2009,

Table 8
Changes in Volunteering Intentions Between Pre- and Post-Games

Pre-Games Volunteering Intentions	Post-Games: Future Volunteering Intention		
	More <i>n</i>	Same or Less <i>n</i>	Total <i>n</i>
Expect to do more	233 (64.5%)	128 (35.5%)	361 (45.9%)
Expect to do same or less	116 (27.3%)	309 (72.7%)	425 (54.1%)
Total	349 (44.4%)	437 (55.6%)	786

2013) has taken a strategic initiative to develop an *Accessibility Guide* that seeks to provide a framework for host cities bidding and hosting the Games to move beyond the Games venues to the broader accessibility of the city. Within these documents, volunteers with disability were specifically identified as a core consideration in developing a more inclusive access culture.

In the broader event discourse, what is important to consider here also is the extent to which other Olympic and Paralympic Organizing Committees (OCOG) will embrace this proactive approach or will London be the first and the last OCOG to engage in this agenda? Following London 2012, both Sochi 2014 (2007) and Rio 2016 (2012) have espoused a desire for a more inclusive or barrier-free environment, which has been supported through the IPC's *Accessibility Guidelines* (IPC, 2009, 2013). To date

there is no research evidence that demonstrates the postevent legacy or to what extent this will facilitate participation of PwD as volunteers or an increased participation in society (Sochi 2014, 2007; Rio 2016, 2012); however, this is not unexpected given the lack of legacy research conducted after the event (Dickson, Benson, & Blackman, 2011).

Key highlights from the findings suggest that of the 786 respondents in this research, it is well below the UK proportion of the population with a disability (19%). The findings identified that sample of PwD were generally, though not significantly, older than the broader sample that had 61.7% of people aged over 44 years and significantly different in employment situation with less PwD in full-time employment (Dickson et al., 2014), which supports the general disability statistics that identify lower employment rates for PwD (ODI, 2014).

Table 9
Future Volunteering Intentions

	More	Same or Less	Total	Pearson Correlation [<i>p</i> , ² (<i>df</i>) (<i>n</i>)]
Age				0.961, 0.002(1) (786)
<25 years	30 (44.1%)	38 (55.9%)	68 (8.7%)	
25 years plus	319 (44.4%)	399 (55.6%)	718 (91.3%)	
Gender				0.505, 0.444(1) (786)
Female	197 (43.4%)	257 (56.6%)	454 (57.8%)	
Male	152 (45.8%)	180 (54.2%)	332 (42.2%)	
Previous volunteering				<0.001, 15.321(1) (668)
Yes	187 (37.6%)	311 (62.4%)	498 (74.6%)	
No	93 (54.7%)	77 (45.3%)	170 (25.4%)	
Gross household income p.a.				0.045, 11.335(5) (786)
£0 to £6,500	35 (58.3%)	25 (41.7%)	60	
£6,501 to £22,000	74 (50.0%)	74 (50.0%)	148	
£22,001 to £37,000	69 (42.9%)	92 (57.1%)	161	
£37,001 to £50,000	43 (41.3%)	61 (58.7%)	104	
More than £50,000	75 (45.2%)	91 (54.8%)	166	
Prefer not to say	53 (36.1%)	94 (63.9%)	147	
Total	349 (44.4%)	437 (55.6%)	786	

There was also a significant difference in previous volunteering with PwD having a slightly higher previous volunteering level. The majority of these volunteers were from the immediate vicinity of the key Games venues such as London and South East England, suggesting that geographic proximity to the events is important to recruitment, particularly as this also enables volunteers to stay in their own homes, reducing barriers to participation. Yet, as the findings show the majority of people with a disability volunteering identified that they had “no access needs.” This suggests that the recruitment process favored either people with lower access needs or that only people with lower access needs applied for consideration. As studies on sports constraints and disability have shown, the relative level of a person’s support or access needs is a much better indicator of the level of constraints they face to participate (Darcy, Lock, et al., 2017; Sotiriadou & Wicker, 2014). Similarly, Brittain (2009) outlines the systemic underrepresentation of people with higher support needs in the Paralympics and suggests this has more to do with resource allocation and sporting ability. Although not volunteering specific, this suggests that greater effort needs to be put into engaging people across all types and levels of support needs. Further, in this study examining the experiences of people with disability volunteering at the London 2012 games, those expressing their dissatisfaction could be considered those people with higher support needs who were critical of the inclusive operational practices implemented for their involvement (Darcy, Dickson, & Benson, 2014).

The main volunteering motivations related to the importance of the Games being a unique and once in a lifetime experience, which is important information for event managers or organizers wishing to recruit volunteers for future events. One notable difference from Vancouver 2010, a winter Games, was that the London 2012 volunteers expressed a greater passion for the Games (ranked 8th) compared to Vancouver 2010 where it was ranked 13th.

The underlying structure of the motivation items indicates the importance of altruistic motivations, reflected in the importance of “giving back to the community,” and the motivation of the event itself. This is consistent with research from Vancouver 2010, which was with a broader population and all the London 2012 respondents (Dickson et al.,

2013, Dickson et al., 2014). The six retained components that accounted for 49% of the variance are the same as the broader London 2012 volunteers where they accounted for 47% of variance (Dickson et al., 2014). Volunteers with a disability for London 2012 are slightly different from Vancouver 2010 where *Availability* emerged as a component and not *Rewards*. This suggests that there may be differences between volunteers at summer versus winter Games, but not necessarily between PwD and those without disabilities who volunteer at the same event. In contrast, the Sydney World Master Games 2009 (Dickson et al., 2015) had *Tradition* as a component, while *Rewards* was not important, suggesting that there are differences in volunteers at Tier 1 and 2 events. If the motivation items and structures are similar, but PwD are underrepresented as volunteers, future OCOGs need to consider what are the barriers to their volunteer participation and what strategies will facilitate participation by PwD as a step towards a social legacy of inclusion.

As London is being hailed as the “Legacy Games,” it is necessary to consider the volunteering legacy potential of PwD. We believe it is moderated by the fact that most had previously volunteered (63.4%), with sporting contexts being of lesser importance and that with the survey being conducted in the *afterglow* of the Games, less than half (44.4%) expected that they would increase their volunteering. This is higher than for Vancouver 2010, where, prior to the Games, 23.7% believed they would increase their postevent volunteering (Dickson et al., 2014). For event managers interested in recruiting with a volunteer legacy in mind, it is noteworthy that the two groups most likely to increase their postevent volunteering were those with lower household incomes, as well as those with no previous volunteering experience. This may reflect that availability to volunteer is a major consideration as much as motivation, particularly where people are already engaged in regular volunteering. Hence, how do you attract new volunteers for mega-events to create a legacy for volunteering and sport development rather than attracting volunteers who are already significantly committed in their volunteering efforts?

Although this article has examined the London 2012 Games in respect of volunteering and disability, the UK Government and the LOCOG developed a targeted strategy to proactively recruit

PwD. We believe the true measure of the insight and learning of London 2012 will be what transpires in the future and as such, the question still remains as to the extent that this London 2012 Games has been the catalyst to change PwD as recipients of volunteer services (as per the literature) to becoming active volunteers in respect of the opportunities afforded volunteers with disabilities in local sporting organizations and community events through to national and international events such as the Commonwealth Games in Glasgow in 2014 (see Misener, McGillvray, MacPherson, & Legg, 2015). However, the official Evaluation Framework developed for London 2012 does not report on such detail making it difficult to evaluate changes in volunteering by PwD because of the games (DCMS, 2009). This raises issues for future event managers as to how they evaluate the impacts and legacies of their events. The IPC does suggest that 10% of budget should be used for evaluating impacts and legacies of the Paralympics yet no Games to this point has committed to such a research program (Misener, Darcy, Legg, & Gilbert, 2013).

Future Research

To further build on the understanding of sport event volunteers, future research should address actual behavior changes after an event thus investigating who is most likely to actually increase their volunteering after the event; investigate barriers and facilitators to volunteer participation by people with access needs across the life of the event design, development, and operation. In particular, the timing of the survey differs from previous research for Vancouver 2010 where the data were collected prior to the event at the request of the OCOG. This reflects the constraints of working within the confines of the demands of the event and the OCOG when conducting this research. This research used an online survey distributed by LOCOG and they were in control of the process and timing. The research design used in this study built upon previous research and consequently sought to contribute to the overall research agenda by addressing the instrument consistency across events, sample sizes relative to the number of motivational items and PCA loadings, as well as

surveying volunteers from all event functional areas. However, the ideal of having consistency of timing of the research was not resolved in this research. Further, as with other mega-event studies, the “sunset clause” of OCOGs poses a major issue for volunteer legacy and sustainability as ongoing research faces a challenging environment of changing organizations, responsibilities, and operations into the future (Cashman & Horne, 2013; Darcy, 2003; Gilmore, 2012).

More broadly, this study has provided more evidence of a highly contextualized nature of volunteer research and SEVMS-related research. As identified in Figure 1, this study provides another set of dimensions to the existing studies on sport event volunteers. In providing a sample of volunteers with disability, we have examined the various comparisons and contrasts between the profile, motivation, and intentions to volunteer after the event. What becomes evident in examining the existing studies and the contrasting results is that they are a product of the sociocultural context including: The country and host city where the research was conducted; the economic circumstances at the time of the event that may impact the supply of volunteers; the ethnic makeup of the country; volunteering culture within that country; the type of event (cf. the Sport Event Typology in Dickson et al., 2014); and most notably with the sample discussed here, whether the volunteers identify as having access needs and/or a disability. Each one of these considerations provides areas for future research and possible limitations of comparing one study to another. Some of these considerations will now be outlined as part of the consideration of the limitations of this study.

Limitations

A common limitation of many studies on volunteering by PwD has been that respondents tend to be grouped into one homogenous category of “disability,” rather than disability being seen as a more complex construct where each dimension of disability has its own specific facilitators for creating enabling environments (Darcy & Buhalis, 2011; Fitzgerald & Lang, 2009). A more complex understanding of disability and its constituent disability types or access considerations also needs to incorporate an understanding of the level of support needs of

each individual (see Darcy, Lock, et al., 2017). Support needs can be thought of on a continuum from a person being independent and not requiring any assistance through to an individual with very high support needs where they requiring one on one 24-hr assistance. The support needs would also vary from core personal care needs (e.g., bathing, eating, and mobility) through to environmental, organizational, and attitudinal. The World Health Organization and many national disabilities statistical collections (e.g., Australian Bureau of Statistics, 2009; ODI, 2014) collect this variable in one form or another. The implications for future volunteer and disability research is whether OCOGs take predominantly people of lower support needs and not people of higher support needs with more complex access requirements (see Brittain, 2009; Darcy & Buhalis, 2011; Darcy, Lock, et al., 2017; Sotiriadou & Wicker, 2014).

Conclusion

The London 2012 Olympic and Paralympic Games provided a unique opportunity to explore the profile, motivations, and future volunteering plans of mega-sport event volunteers with disabilities in that it was the first mega-sport event to overtly target and recruit PwD as part of their overall volunteer strategy. In an effort to attend to the many gaps in the sport and event literature this research has produced the first quantitative understanding of the profile, motivations, and the legacy potential of future volunteering of volunteers with disabilities at a mega-sport event (for a qualitative understanding of experiences see Darcy et al., 2014). This study has now provided a profile of volunteers, understood the ways that they were recruited, determined their previous volunteering experience, identified their motivations for volunteering, and identify their intentions to volunteer into the future that can inform future event managers who are interested in the social impacts and legacies of events for PwD in and beyond the event.

Note

¹There are inconsistencies in the literature as to how to address people with disabilities. In this article we adopt the language of the UN's *Convention of the Rights of Persons with Disabilities* by referring to the person first (e.g., "volunteer with a disability" not "disabled volunteer").

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