Community event sustainability: why don't people volunteer?

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Abstract: Every Saturday, thousands of runners worldwide participate in parkrun, a free 5k run/walk event. Delivery relies on volunteers, and parkrunners are encouraged to volunteer regularly. However, volunteer recruitment is often difficult, and this study aimed to investigate underpinning reasons. Data was collected from 6,749 parkrunners using an online survey, including 860 who had never volunteered. In addition to demographic information and views on incentives, non-volunteers were asked to rate agreement level for 18 statements about not volunteering. Main reasons were preferring to run and not having got round to it. Principal components analysis indicated four underlying factors: Inertia, Self-Interest, Lack of Knowledge and Anxiety. Non-volunteers were younger, slower runners, less frequent parkrun attendees and had become involved more recently than volunteers. Ease of signing up to volunteer and being unsure of commitment required were barriers. It is recommended that these two issues are addressed to help volunteer recruitment.

Key words: volunteering, parkrun, community health, volunteer recruitment

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Community event sustainability: why don't people volunteer?

Community events are often reliant on volunteers to ensure sustainability. For regularly-held events, there may be a need for 'give and take' among participants, with support roles undertaken in balance with full participation in the activity. This is common among, for example, sports clubs (Schlesinger & Nagel, 2018). Recent evidence suggests that both altruistic and egocentric motives play a role, but that people have different motivation profiles according to individual differences and context (Freitag & Manatschal, 2014), indicating that volunteering motives are highly complex. Barriers to volunteering are also complex (Southby & South, 2016), and, like motivations, need to be understood if volunteer recruitment is to be effective.

The present study takes parkrun as a case study. Parkrun is an organisation supporting almost 2000 weekly 5k run/walks worldwide (parkrun, 2019), primarily run by volunteers. In the UK, 23 salaried staff support over 600 weekly volunteer-co-ordinated events. Many of the volunteers are also regular runners or walkers in the events. However, as with episodic (short-term, limited-commitment) volunteering more widely, parkruns sometimes find filling volunteer rosters challenging. Without sufficient numbers of volunteers, community events such as this are unable to take place safely, and repeat events become unsustainable, with the consequent loss of activities that may be important for wellbeing. In recent years, there has been a notable move towards more episodic volunteering (Nichols et al., 2016), reflecting the changing nature of lifestyles. In this environment, better understanding of reasons to volunteer, and, perhaps more importantly, reasons not to volunteer, offers scope to develop initiatives to ensure community events have sufficient volunteers to take place.

The study collected data from UK parkrunners through a survey to explore why, where there is a reliance on reciprocity, people do not volunteer. It includes analysis and findings from data from both volunteers and non-volunteers, offering scope for further research into possible ways of encouraging volunteering at parkrun and other community events.

Literature Review

Formal volunteering

Formal volunteering is defined by the UK Office for National Statistics (2017, p.3) as "voluntary activity in which people volunteer either for an organisation or through an organisation for free". In the UK, where this study is focused, the proportion of the population volunteering formally has increased in recent years to 42% of women and 41% of men, although the time spent volunteering has decreased (ONS, 2017). This compares with 44% in Germany (Bergmann, 2017) and 25% in the US (Bureau of Labor Statistics, 2016).

Experimental evidence on volunteering is limited due to methodological difficulties: an individual randomised to a volunteering condition is not, by definition, a volunteer. However, studies using methods such as telephone interviews (e.g. Shye, 2010) and self-report surveys (Kerwin, Warner, Walker, & Stevens, 2015), suggest that volunteering is both altruistic and confers benefits on the volunteer, with a sense of belonging and making friends identified as important factors (Dallimore et al., 2018; Shye, 2010; Van Willigen, 2000). Ideas such as social exchange theory (SET, with concepts collated and critiqued by Emerson, 1976) and altruistic surplus theory (Cunningham, 1996) suggest balances of 'give and take' are at play in volunteering, but differ in how they conceptualise rewards. SET proposes that actions are undertaken when there is a perceived benefit, although it has been criticised for overgeneralising (Cropanzano et al., 2017). Altruistic surplus theory focuses on contributions made to improve one's environment rather than focusing on measurable individual benefit. Declerck et al. (2013) suggest cognitive responses vary according to prioritisation of either extrinsic motivators or 'warm glow' altruism (the warm glow constituting a benefit), noting contribution is more likely if it avoids negative consequences. Positive affect has also been found to shape complex decision making (Isen, 2001), so may therefore influence the decision to volunteer. Volunteering has been found to be helpful for reducing depression and increasing life satisfaction and wellbeing (Jenkinson et al., 2013) although such benefits might not be anticipated. Additionally, presenting benefits when trying to increase volunteering may have limited effect since rewards may undermine intrinsic motivation (Nichols et al., 2019).

Barriers to volunteering are wide-ranging and complex. A recent review (Southby & South, 2016) found that work and childcare commitments were widespread barriers, and that socially-excluded groups were less likely to volunteer due to demands on their personal and social resources, despite benefits personally and socially when undertaken. High net costs, where costs (time, skills and/or risk) are perceived to outweigh benefits, can also be a barrier (Haski-Leventhal et al., 2019). A large scale US study (Sundeen et al., 2007) found that time was the most commonly-mentioned

barrier to volunteering, followed by lack of interest and health problems. However, in contrast with Southby and South, Sundeen et al. found childcare was not widely cited as a barrier, suggesting that reasons underpinning non-volunteering may be varied, depending on context and individual circumstances.

Sport volunteering

Sport is heavily reliant on volunteers, including club coaches, staffing of major events such as the Olympics, and managing smaller local events and organisations. Motivation underpinning sports volunteering includes commitment to a single event as a 'serious leisure' activity (Twynam, Farrell, & Johnston, 2002), and opportunities for autonomy, interaction with others and having one's input valued (Allen & Shaw, 2009). Participation in physical activity has well-established preventative and therapeutic benefits for a wide range of chronic physical and mental health conditions (Donaghy, 2007; Myers, 2008; Stanton et al., 2014; Warburton et al., 2010), and mass events have the potential to improve community health (Bauman et al., 2009). Such events are often dependent on volunteers in order to take place.

Volunteering may involve regular duties such as committee membership and meetings, or episodic volunteering, defined as where roles are short-term and relatively informal (National Council of Voluntary Organisations (NCVO), n.d.) e.g. for a specific event. Local sports clubs are particularly reliant on reciprocal volunteering, where participation and support roles are carried out in tandem. Hindley (2018) notes a strong sense of shared experience and connection among parkrun participants, and a study of 26 Swiss and German sports clubs (Schlesinger & Nagel, 2018) found that identification with a club, a sense of collective solidarity, having children who were club members and satisfaction with working conditions boosted volunteering. The only negative association was with length of volunteering; the longer their previous commitment, the more likely members were to step back from volunteering. Other factors such as age, gender, duration of membership, competition experience and promotion of volunteering opportunities were found to have little effect. However, other evidence suggests gender may affect volunteering roles taken, with gender power relations particularly influential (Stride et al., 2019).

Barriers to sport volunteering are, as with other volunteering, wide-ranging. A recent study found other obligations and work schedules were the main reasons not to volunteer (Krajňáková et al., 2018), but the participants were mostly aged under 30. Nichols et al. (2019, 2016) emphasise the importance of a life-course approach where individual traits, along with social networks and local and wider environments, change over time and interact in different ways, although personal values

– a key factor – tend to be relatively constant. They argue that economic theories focus too much on self-interest, and note that this can lead to recruitment strategies that emphasise extrinsic benefits. Once such benefits are received (for example, sufficient experience to add to a CV), volunteering may be discontinued. Nichols et al. (2019) observe that sporting capital (which relies on factors such as social connections, confidence, health and competence) is greater among higher social classes, as are volunteering rates. On this basis, they advocate social equality to reduce barriers to volunteering.

parkrun

parkrun provides a useful case study of reciprocal, episodic volunteering. It is a weekly 5k run/walk event held at almost 2000 locations around the world every Saturday morning. Junior parkrun events have also been set up in the UK and Ireland, with 230 junior 2k events taking place every Sunday. Events are co-ordinated by a core team of volunteers with ongoing involvement, while additional volunteers are recruited for remaining roles on an episodic basis.

parkrun demonstrates the potential impact of volunteer-led sports events, delivered by local, largely autonomous groups with little financial outlay. Being free of charge enhances accessibility, and parkrun may be particularly suited to improving community health (Grunseit, Richards, & Merom, 2017; Stevinson & Hickson, 2014). Stevinson and Hickson found that the majority of parkrun participants are not regular runners when they first register to take part, but report improvements in physical and psychological health with regular participation (2014).

The parkrun organisation has 23 paid UK employees to support the smooth operation of 615 UK events weekly; UK participation figures for 13 June 2019 included 171,647 finishers and 18,112 volunteers. Financing is achieved through commercial sponsorship, individual donations and merchandise sales. Its growth has been gradual, from a single event in 2004 with no initial intention of scaling (Waterman, 2014). The usual model in the literature is initial testing of a small, controlled physical activity intervention, but attempts to scale up are not widely-reported (Reis et al., 2016). The parkrun model is seen as an exemplar of scalable, sustainable community fitness initiatives by the UK government, with a wider positive economic impact (Department for Culture Media and Sport, 2015). This is in the context of attempts by the UK coalition government of 2010-2015 to cut costs by increasing voluntary activity, which were limited by lack of training and the speed with which assets were transferred, and less successful in groups with lower levels of social capital (Findlay-King et al., 2018). While economically disadvantaged and ethnic minority groups are not universally well-represented at parkrun, it has achieved high participation levels among women and

older people (Stevinson & Hickson, 2014), and has specifically addressed accessibility issues for disabled participants, such as through recruiting sighted volunteers to guide visually impaired runners. Research into parkrun volunteering has identified both personal gain and helping others as incentives (Stevinson et al., 2015), with the need to 'give back' in order to sustain events given as a reason to volunteer (Wiltshire & Stevinson, 2018). However, no research on barriers to volunteering at parkrun could be found.

Rationale

This study sought to examine non-volunteering behaviour at adult events to explore barriers and identify how these might be overcome, with a view to increasing the potential sustainability of parkrun and similar initiatives. While parkrun volunteering has been mentioned in research (Stevinson et al., 2015) it has not been the main focus of any studies, despite being fundamental to parkrun's sustainability. Furthermore, mentions of parkrun volunteering have reported the benefits of doing so, but have not explored reasons for not doing so, which may be useful not only to develop volunteering at parkrun, but at community-based activities more widely. The personal experiences of recruiting volunteers among three of the present authors were central to this study being initiated. Shortages of volunteers can lead to safety issues, and increase workload both before an event in order to recruit volunteers, and during an event if tasks are spread among fewer people. Difficulties recruiting parkrun volunteers are anecdotal and unmeasured, and it is not clear whether they differ from other events dependent on reciprocal volunteering. Nevertheless, with many events beyond parkrun also finding volunteer recruitment challenging, insights may be helpful to volunteer co-ordinators more broadly.

Methods

A proposal for a project to investigate how to increase volunteering rates, with difficulties recruiting forming a key element of the rationale, was submitted to parkrun and approved. The purpose of this study was to explore possible barriers to volunteering and identify what might be underpinning reluctance to volunteer. This paper covers the quantitative element of an exploratory survey, focusing on non-volunteer perspectives. parkrun supported the project by promoting the survey through their weekly online newsletter.

The study aimed:

1. to compare volunteers with non-volunteers to see if there were characteristics differentiating the groups;
2. to establish whether a number of pre-identified possible barriers might be limiting volunteering
3. to explore any underlying constructs/themes of non-volunteering;
4. to invite further comment from non-volunteers to see if additional barriers could be identified;
5. to gather feedback on possible incentives to encourage volunteering.

Data was collected through an online survey allowing participant anonymity. Inclusion criteria were that participants were aged 18 or over and had participated in parkrun as a runner/walker, volunteer, or both. There were no exclusion criteria. Ethical approval was given by Kingston University and St. George's, University of London Joint Faculty Research Ethics Committee, and funding was provided by a Small Grant from the same faculty.

The survey combined a convenience sample with 'snowballing'. Participants were recruited through FaceBook and Twitter, including the FaceBook parkrun discussion group which had around 11,000 members at the time. Posts were widely shared and retweeted, and the UK parkrun organisation publicised the survey in their weekly e-newsletter; the vast majority of participants took part in the 48 hours after the first e-newsletter link was circulated. The administration of parkrun itself is primarily online, with online registration and electronic communication of results. People are free to participate without registering, but would not receive a time without being able to present a personal barcode, generated at registration, while volunteer recruitment is managed mainly through social media and email. Full participation is therefore reliant on the computer access and skills of the individual or a friend/family member. Thus an e-survey was consistent with media used for parkrun participation, although electronic media may create a barrier to parkrun and survey participation.

The survey was accessed via an anonymous link, and provided a link to an information sheet. The survey collected electronic informed consent before participation. Questions were developed by three members of the research team, who all had experience of running and volunteering, including run-directing. Anecdotal evidence was shared to develop questions to test a wide range of motivations and barriers. The full questionnaire is provided in the Appendix. The present paper focuses on quantitative data from non-volunteers, with volunteer data included for comparison where applicable.

Participants were asked to state their age and gender, ethnicity using NHS ethnic categories, region, personal best parkrun time in minutes and seconds, approximate number of parkruns and approximate year of starting parkrun, from which parkrunning frequency was calculated, and whether they had volunteered or not (compulsory yes/no response). Volunteers and non-volunteers then completed separate branches of the survey. Volunteers were asked what they enjoyed and did not enjoy about volunteering. Non-volunteers were presented with 18 statements and invited to indicate level of agreement using a five-point scale ranging from 'disagree strongly' to 'agree strongly'. Questions included 'I didn't know parkruns were run by volunteers', 'I don't feel confident enough' and 'I'd rather run than volunteer.' Free text responses were invited to identify any additional barriers

The final section of the survey, presented to all participants, explored how different incentives and encouragement might affect volunteering. Finally, participants were asked what they thought would encourage more frequent volunteering, and could provide additional feedback using free-text fields.

Data were collected using Qualtrics (https://www.qualtrics.com/) and quantitative data analysed using SPSS Version 23 (https://www.ibm.com/analytics/us/en/technology/spss/). Incomplete surveys were removed prior to analysis in line with ethical principles regarding the right to withdraw, which participants could exercise by closing their browser mid-survey. Outliers reflecting technical impossibilities or inconsistencies were identified and removed where possible, (for example, responses where participants indicated total number of parkruns and duration of involvement which substantially exceeded maximum feasible parkruns per year).

Personal best performances at a parkrun (the individual's fastest time) were converted into World Masters Athletics (WMA) age/gender gradings if sufficient information was provided, using approved WMA factors from http://www.runscore.com/Alan/AgeGrade.html, maintained by a collaborator in the development of the system. WMA ratings here reflect 5k pace from the individual's best performance as a percentage of the world record 5k pace for that age and gender to allow meaningful comparisons.

Responses to 18 statements regarding possible barriers to volunteering in the non-volunteer section were compared for frequency of agreement and disagreement. The responses were then converted to scores from 1 (disagree strongly) to 5 (agree strongly) for analysis using exploratory principal components analysis (PCA)[1] to see whether statements could be grouped to reflect underlying themes. PCA is a method used where there are a large number of variables; the questions here explore 18 such variables, each being a reason not to volunteer. With just a few variables,

correlation analysis may show clear relationships; with larger numbers of variables, this is much harder to identify simply by looking at a correlation matrix. PCA tries to rationalise and reduce the number of variables by identifying relationships between them based on correlation, and finding where there is an underlying commonality between several variables. For this study, the aim was to see if the many possible reasons why individuals do not volunteer could be grouped into such commonalities, perhaps with several different reasons linked to a single barrier. PCA is particularly suited to exploring groups of variables where there has been little previous research; it is considered an exploratory method. Analysis was carried out as if for a random sample, although the sample was self-selecting.

Free text responses from non-volunteers were coded to identify additional barriers to volunteering that had not been explored in the 18 statements, and these barriers are reported with example quotations. Responses to questions regarding incentives to volunteer were analysed using chi square tests of independence to compare volunteer and non-volunteer groups[2] to see if differences between the two were statistically significant and to assess the effect size. Due to the large sample size, significance was widely achieved for small differences (small effect sizes) and these have been identified in the results. Although effect sizes were generally small, this could be attributable to the complexity of the social phenomenon, and the differences in percentages demonstrate clear contrasts between the two groups. Additional technical detail of analysis is provided in endnotes.

Results

This section begins with descriptive statistics before going on to look at the results of the principal components analysis. Following this, comments on possible additional barriers from participants are included, along with responses to possible incentives for volunteering.

Descriptive statistics

There were 7,047 responses to the survey, of which 298 were incomplete and were deleted in accordance with ethical guidance. This left 6,749 participants of which 860 were non-volunteers. There was a small group of respondents (64, or 0.9%), who had volunteered at parkrun but not run/walked at an event. Across all participants, 4079 (60.4%) were women and 2654 (39.4%) were men. Of the remaining 16, four described themselves as other, six ticked ‘prefer not to say’ and six left the answer blank. Ages ranged from 18 to 86. Demographics are summarised in Table 1.

Table 1: Demographics

	Total n	Mean	SD
Mean age	6,515	47.87	11.64
Years of parkrunning	6,559	3.25	2.19
Personal best (PB)	5,733	27:46	5:48
Women: PB	3,325	29:51	5:31
Men: PB	2,403	24:51	4:52
World Masters Athletics Score (WMA)	5,567	58.45%	9.96%
Women: WMA	3,244	56.14%	9.72%
Men: WMA	2,323	61.73%	9.34%
Number of parkruns completed	6,620	62.84	63.67
Women: number of parkruns completed	3,987	52.88	55.69
Men: number of parkruns completed	2,630	77.90	71.45
	Total n	**(%)**	
Ethnicity: All	6,215	(100.0)	
White British	5,607	(86.1)	
Other White	522	(8.0)	
Asian/Asian British	40	(0.6)	
Black/Black British	23	(0.3)	
Chinese/ other	23	(0.3)	
Region: All	6,698	(100.0)	
UK	6,488	(96.9)	
Non UK	210	(3.1)	

* Some participants did not identify as male/female, or chose not to disclose their gender

Table 2 shows differences between non-volunteers and volunteers for gender, age, performance, time as a parkrunner and regularity of parkrunning. Independent *t*-tests showed significant differences between the groups: non-volunteers were younger, slower with lower WMA scores, and had been involved for a shorter time, also attending less frequently than volunteers. Effect sizes were, however, generally small with the exception of the moderate effect for frequency of attendance.

Non-volunteering participants were asked the extent to which they agreed or disagreed with 18 statements regarding pre-identified barriers to parkrun volunteering. Table 3 shows the frequencies and percentages for responses, for the five options presented in the survey, and also with figures combining strong and moderate agreement, and strong and moderate disagreement.

Table 2: Comparison of non-volunteers and volunteers

	Non-volunteers (n = 860, 12.7%)		**Volunteers (n = 5889, 87.3%)**								
Female	588 (68.5%)		3491 (59.3%)								
Male	267 (31.1%)		2387 (40.5%)		**Two-tailed *t* tests**						
	Mean	**SD**	**Mean**	**SD**	**t**	**df**	**p**	**MD**	**95% CI**	**η^2**	**Effect size**
Age	42.92	12.58	48.58	11.32	12.224	6559	<.001	5.660	4.751 to 6.568	.022	Small
Personal best	29:17	6:06	27:33	5:44	-7.019	5736	<.001	-104.089	-133.196 to -74.983	.009	Very small
WMA grading	54.21%	9.32	59.04%	9.90	12.349	5565	<.001	4.830	4.062 to 5.597	.027	Small
Time as a parkrunner	1.95 yrs	1.94	3.44 yrs	2.16	20.335	6557	<.001	1.492	1.348 to 1.636	.059	Small/moderate
Events per year	9.73	9.03	20.16	12.78	27.814	6439	<.001	10.429	9.694 to 11.165	.107	Moderate

Table 3: Frequencies of agreement with pre-identified barriers

Statement	**Agree** (total of agree strongly and agree moderately)		**Disagree** (total of disagree moderately and disagree strongly)		Agree strongly		Agree moderately		Neither agree nor disagree		Disagree moderately		Disagree strongly		N
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	
I'd rather run than volunteer	680	79.4	55	6.4	306	35.7	374	43.7	121	14.1	33	3.9	22	2.6	856
I haven't got round to it	560	65.6	132	15.5	217	25.4	343	40.2	162	19.0	81	9.5	51	6.0	854
I can't run much during the week, so I don't volunteer because I need my run	489	57.1	233	27.2	188	22.0	301	35.2	134	15.7	123	14.4	110	12.9	856
I don't want to find myself constantly having to volunteer	353	41.2	337	39.4	67	7.8	286	33.4	166	19.4	166	19.4	171	20.0	856
I'd want to know more before committing	344	40.1	345	40.3	51	6.0	293	34.2	168	19.6	164	19.1	181	21.1	857
I already volunteer for another organisation	298	34.8	448	52.3	169	19.7	129	15.1	111	13.0	100	11.7	348	40.6	857
I don't know much about it	284	33.3	344	40.3	46	5.4	238	27.9	225	26.4	219	25.7	125	14.7	853
I don't have time to volunteer	278	32.5	392	45.8	55	6.4	223	26.1	185	21.6	222	26.0	170	19.9	855
I don't feel confident enough	213	24.9	498	58.2	41	4.8	172	20.1	144	16.8	211	24.7	287	33.6	855
I'm worried I'll mess up	195	22.9	485	56.9	42	4.9	153	18.0	172	20.2	207	24.3	278	32.6	852
I'm not sure how to get involved	173	20.2	561	65.5	31	3.6	142	16.6	122	14.3	270	31.5	291	34.0	856
Volunteering seems a bit cliquey	142	16.6	542	63.4	26	3.0	116	13.6	171	20.0	182	21.3	360	42.1	855
I'm worried I'll be uncomfortable (getting cold/wet/needing the loo)	134	15.7	603	70.4	14	1.6	120	14.0	119	13.9	238	27.8	365	42.6	856
There are loads of marshals already so I don't need to	124	14.5	506	59.1	15	1.8	109	12.7	226	26.4	293	34.2	213	24.9	856
I'm worried I'll be stuck on my own somewhere	116	13.6	619	72.3	20	2.3	96	11.2	121	14.1	218	25.5	401	46.8	856
I hadn't considered it	103	12.1	609	71.5	26	3.1	77	9.0	140	16.4	304	35.7	305	35.8	852
I'm worried that I might get harassed	36	4.2	730	85.5	4	0.5	32	3.7	88	10.3	178	20.8	552	64.6	854
I didn't know parkruns were run by volunteers	15	1.8	826	96.6	7	0.8	8	0.9	14	1.6	53	6.2	773	90.4	855

The highest level of agreement was with “I'd rather run than volunteer”, followed by “I haven't got round to it” and then “I can't run much during the week, so I don't volunteer because I need my run.” Lowest levels of agreement were with “I didn't know parkruns were run by volunteers”, followed by “I'm worried that I might get harassed” and “I hadn't considered it.” This suggests that key barriers concern preferring to run, but there is high level of awareness of volunteering and some consideration of doing so.

Principal components analysis

Possible underlying constructs of non-volunteering were explored using principal components analysis (PCA) applied to the 18 statements rated by non-volunteers. For analysis, ‘Agree strongly’ was scored as 5, ‘Agree moderately’ as 4, ‘Neither agree nor disagree’ as 3, ‘Disagree moderately’ as 2 and ‘Disagree strongly’ as 1.[3] The PCA indicated four groups of statements, each group related to an underlying construct, and each designated as a factor. The factor represents what is seen in the data; in actuality, underlying constructs may be slightly different if the 18 items were not completely representative of reasons not to volunteer. PCA requires the researcher to examine the statements within each group, and thus to identify what the factor is, giving it a name to reflect this. Cronbach’s alpha denotes the consistency within the group, with alphas ideally above 0.7 (they are a little low here, but that may be due to relatively small groups of items). The results are outlined in Table 4.

Factor 1 was named ‘Anxiety’, as items clustering here related to anxiety about volunteering, regarding both practicalities of the role and social aspects. Cronbach’s alpha = .758 with 6 items.

Anxiety items:

1. I don't feel confident enough
2. I'm worried I'll mess up
3. I'm worried that I might get harassed
4. I'm worried I'll be stuck on my own somewhere
5. Volunteering seems a bit cliquey
6. I'm worried I'll be uncomfortable (getting cold/wet/needing the loo)

Table 4: Results of principal components analysis

Statement	Pattern coefficients				Structure coefficients				Communalities
	1	2	3	4	1	2	3	4	
I don't feel confident enough	**.833**	-.084	.033	.210	**.809**	.005	-.243	.215	.621
I'm worried I'll mess up	**.756**	-.093	.088	**.309**	**.711**	-.025	-.146	.322	.508
I'm worried that I might get harassed	**.656**	.008	.034	-.272	**.679**	.140	-.434	-.149	.626
I'm worried I'll be stuck on my own somewhere	**.604**	.039	-.188	-.122	**.645**	.095	-.246	-.269	.235
Volunteering seems a bit cliquey	**.583**	.125	-.083	-.040	**.629**	.208	-.322	-.058	.492
I'm worried I'll be uncomfortable (getting cold/wet/needing the loo)	**.467**	.092	-.099	-.323	**.517**	.175	-.326	-.341	.422
I can't run much during the week, so I don't volunteer because I need my run	.094	**.736**	.156	-.006	.125	**.729**	.031	-.018	.711
I'd rather run than volunteer	-.136	**.687**	.167	.096	-.115	**.646**	.147	.088	.656
I don't have time to volunteer	-.012	**.511**	-.149	-.003	.106	**.528**	-.206	-.043	.299
I don't want to find myself constantly having to volunteer	.240	**.433**	-.255	-.134	.389	**.499**	**-.414**	-.185	.488
There are loads of marshals already so I don't need to	.062	**.427**	**-.347**	-.138	.244	**.483**	**-.439**	-.200	.349
I'm not sure how to get involved	.161	-.065	**-.742**	.175	.431	.037	**-.773**	.085	.608
I don't know much about it	.097	.070	**-.679**	**.389**	.465	.157	**-.690**	.203	.515
I'd want to know more before committing	.220	.066	**-.635**	.285	.360	.147	**-.676**	**.301**	.210
I hadn't considered it	-.123	.080	**-.605**	**-.339**	.114	.152	**-.610**	**-.417**	.401
I didn't know parkruns were run by volunteers	.030	-.276	**-.433**	-.286	.159	-.208	**-.446**	**-.328**	.440
I haven't got round to it	-.016	.061	-.069	**.486**	.016	.047	-.010	**.475**	.400
I already volunteer for another organisation	.003	.059	.020	**-.455**	.004	.076	-.045	**-.455**	.554

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]
a. Rotation converged in 21 iterations.

Factor 2 was named ‘Self-interest’ and items clustering here related to a preference for running and absence of altruism. Cronbach’s alpha = .565, with 5 items (removing any items decreased alpha).

Self-interest items:

1. I can't run much during the week, so I don't volunteer because I need my run
2. I'd rather run than volunteer
3. I don't have time to volunteer
4. There are loads of marshals already so I don't need to
5. I don't want to find myself constantly having to volunteer

Factor 3 was named ‘Lack of knowledge’ as items clustering on this factor related to not knowing about what volunteering entails, and how to get involved. Cronbach’s alpha = .686 with 5 items, .716 with 4 items, and .764 with 3 items: two items (‘I didn’t know parkruns were run by volunteers’ and ‘I hadn’t considered it’) were removed to increase alpha.

Lack of knowledge items:

1. I'm not sure how to get involved
2. I don't know much about it
3. I'd want to know more before committing

Factor 4 was named ‘Inertia’. Two items clustered on this factor: ‘I haven’t got round to it’ and ‘I already volunteer for another organisation’. The latter was negatively loaded, suggesting a lack of impetus to volunteer at parkrun combined with a wider non-volunteering behaviour. Cronbach’s alpha = .073 (low figure partly attributable to the low number of items) with 2 items. Of the 860 non-volunteers, 560 reported that they had not got round to it, while 298 volunteered elsewhere.

Inertia items:

1. I haven’t got round to it
2. I already volunteer for another organisation

Self-interest and inertia corresponded with the three most commonly agreed-with items in the list of 18, and the only three where there was a noteworthy majority agreeing. These were “I'd rather run than volunteer”, “I haven't got round to it” and “I can't run much during the week, so I don't volunteer because I need my run.”

Comments on not volunteering

Comments from non-volunteers identified several further reasons for not volunteering that had not been included in the survey questions: early starts, online sign-up and communication, child care issues, other commitments, being new to parkrun, waiting for injury and pressure to volunteer. These are expanded on below with supporting quotes from participants.

Volunteers are asked to arrive at 8.30am, half an hour before the start of parkrun. Some participants commented that this was too early for them.

> *"Just a comment about the earlier start – you hadn't got that as a barrier to volunteering and I would say it is the biggest one for me." (Female, 47)*

Although initial registration for parkrun takes place online, some participants were reluctant to use a computer to volunteer. This was not necessarily due to lack of computer literacy, but reflected not wanting to log on outside work, and not being signed up to certain social media platforms perceived as volunteer forums:

> *"I just hate going on the computer after work or on weekends, so I haven't signed up yet." (Female, 38)*

> *"A lot of communication seems to be via Facebook, and I'm not a user of that." (Male, 67)*

Participants described difficulties finding the time needed to volunteer in the context of family commitments and other activities. They worried about the practicalities of marshalling with young children accompanying them:

> *"On the rare weeks I can attend a parkrun it's with a toddler in a buggy which unfortunately doesn't go well with being a marshal" (Female, 31)*

Several participants described needing to leave parkrun punctually to get to work or to take part in other volunteering activities:

> *"I squeeze in parkrun before helping out at my slimming group." (Female, 64)*

Although there was preference for running/walking over volunteering, several participants gave being new to parkrun as a specific reason not to volunteer as they wanted to improve their

times and become more familiar with parkrun, and/or were intending to volunteer after a certain number of runs.

> *"I've not long been involved and intend to do a set number of parkruns before I volunteer." (Female, 49)*

A few parkrunners anticipated being injured at some future point (reasons were not given), and would volunteer only if unable to run:

> *"Been waiting for an injury that stops me running to make the leap to volunteering!" (Female, 26)*

A few parkrunners reported being asked why they had not volunteered, and in one instance, non-volunteers being 'booed' during a pre-run briefing, leading to disengagement.

> *"I volunteer in many different areas in my local community … I often have to rush off to one of these voluntary jobs straight after the run. I was singled out at my parkrun and asked why I hadn't volunteered yet (as I came each week). This actually really upset me and I have stopped going." (Female, 42)*

Incentivising volunteering

Seven possible incentives for volunteering were presented. Frequencies and outcomes of a chi-square test of independence (see Table 5) indicate that non-volunteers were more receptive to the suggestions than volunteers, although effect sizes were small.

Additionally, on completion of 25 instances of volunteering, volunteers are entitled to a free technical tee-shirt. The majority of volunteers – almost 80% - were aware of this, while over two-thirds of non-volunteers were not. Just under half of non-volunteers said a tee-shirt would not be a volunteering incentive, compared with 36% of volunteers – 21% of volunteers already had a volunteering tee-shirt (see Table 6).

Table 5: Volunteers' and non-volunteers' responses regarding incentives (frequencies, percentages and standardised residuals)

	I'd volunteer less/be less likely to volunteer		It wouldn't make any difference		I'd volunteer more often/ be more likely to volunteer		Chi-square test of independence (all differences significant at $p < .0005$)		
	V'rs	Non-v'rs	V'rs	Non-v'rs	V'rs	Non-v'rs	χ^2	Effect size (Cramer's V)	
People were encouraged to volunteer 3 times a year	103 (1.7%) $z = -1.8$	38 (4.4%) $z = 4.7$	4348 (73.8%) $z = 4.1$	340 (39.5%) $z = -10.7$	1389 (23.6%) $z = -6.0$	481 (55.9%) $z = 15.6$	433.64 $df = 2$	.254	Small
People were encouraged to volunteer after every x number of parkruns (e.g. every 15 or 20 parkruns)	241 (4.41%) $z = -2.0$	74 (8.6%) $z = 5.3$	4109 (69.8%) $z = 4.1$	310 (36.0%) $z = -10.7$	1490 (25.3%) $z = -5.4$	473 (55.0%) $z = 14.0$	389.24 $df = 2$	.241	Small
There was a prize draw every month for volunteers	105 (1.8%) $z = -.9$	26 (3.0%) $z = 2.3$	4660 (79.1%) $z = .9$	607 (70.6%) $z = -2.5$	1074 (18.2%) $z = -1.6$	220 (25.6%) $z = 4.3$	34.08 $df = 2$	.071	Negligible
Future rosters were laid out at every parkrun for people to sign up	83 (1.4%) $z = -.8$	21 (2.4%) $z = 2.1$	4234 (71.9%) $z = 3.5$	368 (42.8%) $z = -9.1$	1513 (25.7%) $z = -5.2$	468 (54.4%) $z = 13.4$	307.85 $df = 2$	.215	Small
There were volunteer teeshirts for 50 and 100 times volunteering	39 (0.7%) $z = -2.2$	25 (2.9%) $z = 5.9$	4116 (69.9%) $z = .0$	604 (70.2%) $z = .0$	1687 (28.6%) $z = .4$	229 (26.6%) $z = -1.0$	40.77 $df = 2$	.078	Negligible
Volunteers got a discount at the cafe	65 (1.1%) $z = -1.5$	25 (2.9%) $z = 4.0$	4899 (83.2%) $z = .9$	649 (75.5%) $z = -2.3$	864 (14.7%) $z = -1.6$	183 (21.3%) $z = 4.2$	44.60 $df = 2$	.082	Negligible
Volunteers were provided with cake or chocolates	185 (3.1%) $z = -1.6$	54 (6.2%) $z = 4.2$	5253 (89.2%) $z = 1.3$	665 (77.3%) $z = -3.4$	382 (6.5%) $z = -3.3$	137 (15.9%) $z = 8.6$	119.28 $df = 2$	.134	Small

Table 6: Volunteers' and non-volunteers' awareness of volunteering tee-shirt and perceptions of it as an incentive (frequencies, percentages and standardised residuals)

	I'm aware of the volunteering tee-shirt	I'm not aware of the volunteering tee-shirt	Chi-square test of independence (significant at $p < .0005$)			I wouldn't be more likely to volunteer [because of the tee-shirt]	I've already got a volunteer tee-shirt
			χ^2	Effect size (phi)			
Volunteers	4671 (79.3%) $z = 5.6$	1193 20.3%) $z = -9.3$	926.65 $df = 1$	.371	Medium	2118 (36%) $z = -2.1$	1258 (21.4%)
Non-volunteers	261 (30.3%) $z = -14.7$	596 (69.3%) $z = 24.4$				421 (49%) $z = 5.4$	n/a

Discussion

This study aimed to increase understanding of barriers to volunteering at parkrun, and to find reasons underpinning non-volunteering, despite encouragement and dependence on volunteers for event sustainability. The research was exploratory, using a survey to (1) compare volunteers with non-volunteers, (2) explore whether pre-identified barriers were limiting volunteering, (3) find underlying constructs to non-volunteering, (4) identify additional barriers and (5) explore whether incentives might increase volunteering.

Unsurprisingly, non-volunteers had started parkrunning more recently than volunteers, attended less regularly, and had slower times, possibly due to less running experience; a quarter of parkrunners do not consider themselves runners when they first sign up (Stevinson & Hickson, 2014). The overriding reasons for not volunteering were: preferring to run in the event, and not having got round to volunteering, despite considering it. Principal components analysis identified four underpinning constructs: anxiety, self-interest, lack of knowledge, and inertia. Responses to questions about pre-identified barriers suggested self-interest and inertia are more influential than anxiety or lack of knowledge. Additional barriers, such as childcare, disliking online interaction, and disengaging due to pressure to volunteer, were presented. Non-volunteers were more likely than volunteers to indicate tangible incentives would encourage them to volunteer.

Non-volunteers' more recent and less regular attendance may have indicated lower engagement and lower feelings of obligation to volunteer. Contrasts between the two groups could

also be attributed to individual differences, such as the extent to which the individual pursues a benefit or prefers a more altruistic approach (Declerck et al., 2013).The main barrier appears to be a desire to run/walk that cannot be fulfilled through most volunteering roles (Tail Walker and Pacer roles allow the volunteer to run/walk, but constrain their pace). This is despite the weekly opportunities to run, and the opportunity to log 'freedom runs' in one's personal profile; a freedom run is when a parkrun course is completed at a time other than the event itself. These do not count towards an individual's run total, however, and the pursuit of milestone targets and tee-shirts was a motivator to run. Free milestone tee-shirts (after 50, 100, 250 or 500 runs for adults, or 25 volunteering occasions) display status (Hindley, 2018) and may confer a sense of belonging. However, since fewer volunteering than running occasions are required for a tee-shirt, tee-shirts themselves appear not to be motivators; it may be that number of runs confers greater social status than volunteering. The indicators are that there is some element of group running which leads to its prioritisation among parkrunners, and this may be linked to the factor of self-interest. It appears driven by personal preferences possibly linked with social influences. Nevertheless, running tee-shirts may confer a greater sense of belonging and solidarity with parkrun, which may in turn increase propensity to volunteer (Schlesinger & Nagel, 2018). Tee-shirt acquisition may also add to perceived benefits (they are free, with only postage charged) and encourage volunteering to balance reciprocity.

Benefits identified as positives for volunteering – increased wellbeing, a sense of belonging, and social elements (Jenkinson et al., 2013; Shye, 2010; Van Willigen, 2000) – are also likely to be achievable through running at an event (Grunseit et al., 2017; Hindley, 2018; Stevinson et al., 2015). Running/walking parkrun appears to confer some additional benefit to running/walking alone. Attending parkrun could therefore be motivated by social factors such as group running, sense of belonging, setting targets to overtake runners/walkers ahead, public results lists and potential recognition. This means that even if a separate 'volunteers' run before or after the event were practical (it would add considerably to volunteers' time commitment), it would be difficult to give it a similar appeal.

A small number of respondents had volunteered but not run/walked. Comments suggested this was due to wishing to be involved as a non-runner, particularly due to injury or family connections. The UK government's strategy for sport (Department for Culture Media and Sport, 2015) presents volunteering as a way of helping tackle social isolation, building employment skills and helping those with disabilities into employment, but evidence for this was not found in the data here, and further research is needed on this.

Although the 18 pre-identified barriers reflected anxiety, lack of knowledge, self-interest and inertia, most non-volunteers did not consider items relating to anxiety and lack of knowledge to be a barrier. There was disagreement about whether there were sufficient volunteers already, but there was also concern over the level of commitment expected, which corresponds to comments about incentives that clear expectations (e.g. occasions per year) might increase propensity to volunteer. Inertia primarily reflects not getting around to volunteering, and non-volunteers on the whole were not volunteering outside parkrun either, suggesting that volunteering generally was not a widespread activity among this group.

For those describing additional barriers, practicalities including work, childcare and other commitments were notable. While some parents volunteer with children, viability often depends on age and the extra effort involved to ensure volunteering can take place may contribute to inertia. This is consistent with Southby and South's findings (2016) in their review of general (rather than sports-specific) volunteering, and also of Krajňáková et al.'s study (2018), even though their sample was considerably younger than the sample here. Some individuals needed to leave promptly to meet other demands. Other issues were personal preferences, such as disliking early starts, disliking using computers, or wanting to focus on improving times (which may be specific to parkrun). Comments indicated an initial period of adjustment and becoming more familiar with the event before volunteering; although with the four factors, lack of knowledge was not widespread, it was present in higher levels those who had been involved only for a short period of time. The group waiting for an injury before they volunteer suggests that volunteering might be seen as a way of continuing to meet social needs if running is not an option. These additional barriers should be explored further in future research, and offer potential to develop the model of underlying constructs.

Sundeen et al.'s barriers to volunteering generally (2007) – time, lack of interest and health problems – were not widely evident. Interest in parkrun would be expected to be high among parkrunners, and any health issues would be such that would not prevent completion of a 5k event. By participating as a runner or walker, individuals indicate that they have that time available. Similarly, Haski-Leventhal et al.'s (2019) observation that the combination of time, skills and risk demands exceeds perceived benefits is mitigated firstly by the reciprocity of parkrun (without volunteers, it cannot take place), and secondly by the range of roles available, most not requiring high skill levels, and risks being low.

Tangible incentives, such as tee-shirts, chocolate, prizes and discounts were not considered incentivising by the majority of participants, both from the non-volunteer and volunteer groups. The majority of non-volunteers agreed they would be more likely to volunteer with hard-copy rosters at

events and expectations of volunteering frequency specified. Volunteers differed here, and for each incentive, over two thirds said it would make no difference to the frequency of their volunteering. This demonstrates the importance of clear expectations and ease of signing up for those who have not yet volunteered.

These results increase insight into why some people do not volunteer in contexts where there is encouragement and implicit expectation of volunteering activity. Following on from this, the two key questions are how parkrun can increase volunteering among participants, and how to increase volunteering – firstly as parkrun expands, and secondly as other kinds of initiatives look to the model as a way of scaling up. It should be noted that the parkrun model has two elements: regular volunteers on core teams who manage parkrun events, and episodic volunteers to augment their numbers and carry out the full range of tasks required. Trends in sport volunteering generally are moving towards episodic volunteering (Nichols et al., 2016), described as short term or one-off episodes. Nichols et al. suggest this is linked to the fragmentation of leisure time, and also identify 'micro-volunteering' as being a type of episodic volunteering taking place at parkruns. Micro-volunteering is characterised as being for a short length of time, highly accessible and relatively informal, with discrete actions (National Council of Voluntary Organisations (NCVO), n.d.). Given that some participants were unclear about the commitment involved, clarifying the ease and the ad hoc nature of parkrun volunteering is very important. Fragmentation of leisure time may also mean that taking part in multiple activities makes schedules more complex, again perhaps creating a barrier that encourages inertia.

The findings demonstrate some limitations for organisations looking to establish sustainable community events. Running is preferred to volunteering, and comments suggested that volunteering is perceived as a barrier to achieving running goals, particularly for those relatively new to parkrun; in these cases, the self-interest and lack of knowledge factors may both be influencing non-volunteering. The second lesson for wider policy and practice is the importance of making signing up for volunteering easy, particularly for those who may be less engaged with electronic communications and social media, in order to help address the underlying inertia factor. The paper roster at events, used alongside online sign-up options, is a simple idea, but helps overcome this while also providing a visual nudge, and is already used by some parkruns. It relies on ensuring parkrunners are aware of it, and also needs to be clearly visible and available (for example, close to scanners at the end of the event). Ensuring high visibility of a paper roster in a finish area might also utilise the connection between positive affect and helping behaviours (Isen, 2001) for parkrunners who have achieved goals and/or enjoyed their run, although it may not always be practical to use a paper roster, depending on event layout and wet weather, for example.

Volunteering theories such as social exchange theory (SET) and altruistic surplus theory appear to have limited use in the parkrun volunteering context. SET (Emerson, 1976) suggests that individuals aim to balance contribution and return over time. As Stevinson et al. note (2015), parkrunners conceptualise donating money to their local parkrun, and giving advice to and encouraging the runners around them as a reciprocal contribution, and these can be carried out while participating in the run itself without fulfilling a volunteer role. Altruistic surplus, where the individual prioritises benefits for the community ahead of benefits to themselves, and may not receive any return from their actions (Cunningham, 1996), may be more relevant to core teams who volunteer frequently, than to the more episodic volunteering where shortages occur. Nevertheless, core team membership itself may confer social status, although the workload involved is considerably greater than episodic volunteering. Overall, individual profiles of motivators and barriers for volunteering and running, including other commitments and the role of individual differences, suggests there are complex and varied reasons underpinning non-volunteering. As a result of this project, a report on findings and recommendations to help increase volunteering among parkrunners has been provided to parkrun and circulated by the organisation and by the researchers. The researchers have also posted on social media to raise awareness of the issues involved.

Limitations

The study has some limitations. The sample was self-selecting, and as participation in research is itself a voluntary activity, this is likely to have resulted in the sample being less representative of non-volunteers. Understanding the behaviour of this group is inevitably challenging as lower levels of research participation would be expected. Nevertheless, the sample of non-volunteers was large enough to facilitate a robust principal components analysis. The use of online recruitment for an online survey, through FaceBook (notably a parkrun FaceBook group), Twitter and a link in parkrun's e-newsletter means that those without access to the internet would have been overlooked. However, parkrun as an organisation requires participants to register online to receive a time each parkrun, and recruits volunteers through social media and emails, therefore carrying out the research online was consistent with the organisational approach.

There was a reliance on self-report which may differ from behaviour; this is particularly relevant to responses to incentives to volunteer, where it may be more socially acceptable to indicate that one's stance is purely altruistic. Reported motivators could be tested with a study to

gauge actual effects of interventions to encourage volunteering. As the survey was exploratory, some issues were overlooked and this was evident in the comments section where childcare, volunteering with children and unpredictable working patterns were mentioned.

Future research

Future research should take the additional limiting factors for volunteering participation into account when exploring volunteering behaviours. There is also scope for testing interventions using multiple parkrun events in cluster studies. There is the potential to develop and refine the findings from the principal components analysis and perhaps develop a more generic measure of non-volunteering. As much past research has focused on why people volunteer, greater understanding of why people do not could provide additional evidence for strategies for volunteering organisations to attract volunteers.

Practical testing of interventions to encourage volunteering is also recommended; for example, the findings here and research on positive affect and altruism suggest a paper roster in a prominent position in a parkrun finish area should help increase volunteering. This simple intervention should be investigated in a controlled study.

Overall, this study was unusual in its exploration of non-volunteering, rather than volunteering behaviours. While there are inevitably limitations, it nevertheless indicates the main reasons for not volunteering in reciprocal frameworks: preferring to participate actively in the event, and not getting around to offering to help. This in turn presents clear areas to investigate further and test what might increase volunteering rates among those who have not volunteered previously. The results give an indication of underpinning factors of reluctance to volunteer in an environment where there is an expectation of reciprocity, extending the research field in non-volunteering behaviours. Furthermore, the findings have been passed on and practical recommendations made, hopefully contributing to the long-term sustainability of parkrun.

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Conflict of interest

The fourth author is chair of the parkrun Research Board and the fifth author is Head of Analysis at parkrun. They gave approval for the study and provided feedback on the design.

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Appendix

parkrun Volunteering Survey

Welcome to this survey about parkrun volunteering. You can find an information sheet about the survey here (this will open in a new window).

The first few questions are regarding your consent to take part in this research, and are needed to ensure the study conforms to ethics requirements.

The survey then starts with some general questions about your background, your involvement with parkrun, and will then ask about volunteering.

You can check your progress through the survey using the progress bar at the top of the page.

I confirm that I am aged 18 or over
- ❍ Yes
- ❍ No

I confirm that I have read and understood the information sheet for this study (click here for link). I have been informed of the purpose, risks, and benefits of taking part.
- ❍ Yes
- ❍ No

I understand what my involvement will entail and any questions have been answered to my satisfaction.
- ❍ Yes
- ❍ No

I understand that my participation is entirely voluntary, and that I can withdraw at any time without prejudice.
- ❍ Yes
- ❍ No

I understand that all information obtained will be confidential with the exclusion of any information I disclose relating to illegal activities I have undertaken.
- ❍ Yes
- ❍ No

I agree that research data gathered for the study may be published provided that I cannot be identified as a subject.
- ❍ Yes
- ❍ No

Contact information has been provided should I (a) wish to seek further information from the investigator at any time for purposes of clarification (b) wish to make a complaint (you may wish to

open the link to the information sheet by pressing control and clicking here, and saving the information page).

- ❍ Yes
- ❍ No

I understand that by responding that I agree to these points constitutes granting my informed consent.

- ❍ Yes
- ❍ No

I consent to participate in this research.

- ❍ Yes
- ❍ No

Please enter a memorable name, number or other code below as an identifier. As data is anonymous, if you later decide you want to withdraw your data from the study, this will ensure we can identify and remove it. If there is no identifier, you will not be able to have your data withdrawn.

How old are you? [free field required numerical input of 18 or higher]

What's your gender?

- ❍ Male
- ❍ Female
- ❍ Other
- ❍ Prefer not to say

What's your ethnicity? [indented items displayed as next question according to initial response]

- White
  - White ethnicity: Please select from the following:
    - White British
    - Any Other White Background (please write in) _____
- Mixed
  - Mixed ethnicity: Please select from the following:
    - White and Black Caribbean
    - White and Black African
    - White and Asian
    - Any Other Mixed Background (please write in) _____
- Asian or Asian British
  - Asian/Asian British ethnicity: Please select from the following:
    - Indian
    - Pakistani
    - Bangladeshi
    - Any Other Asian Background (please write in) _____
- Black or Black British
  - Black/Black British ethnicity: Please select from the following:
    - Caribbean
    - African
    - Any Other Black Background (please write in) _____
- Chinese or other ethnic group
  - Chinese/Other ethnicity: Please select from the following
    - Chinese
    - Any Other (please write in) _____
- Prefer not to say

What's your best recent time to complete a parkrun (within the last year)? An approximation is fine if you can't remember. If you've never run, leave this question blank.
Minutes: Seconds

In what region is your local parkrun?

- Channel Islands
- East Midlands
- East of England
- Greater London
- North East England
- North West England
- Northern Ireland
- Scotland
- South East England
- South West England
- Wales
- West Midlands
- Yorkshire and Humber
- My local parkrun is outside the UK

How many parkruns have you done altogether, at any location? An approximate number is fine if you're not sure.

What year did you do your first parkrun? An approximate year is fine if you're not sure.

Are you a parkrun tourist? i.e. Do you visit parkruns away from your home parkrun?
- ❍ No, I only attend my home parkrun
- ❍ Yes, but very rarely
- ❍ Yes, 1-2 times a year
- ❍ Yes, 3-5 times a year
- ❍ Yes, 6-10 times a year
- ❍ Yes, more than 10 times a year

Have you ever been a volunteer at a parkrun?
- ❍ Yes
- ❍ No

(Please note: the back button won't work once you continue to the next section).

Note: The next section depended on the participant's volunteering status. Volunteers saw Branch A questions and non-volunteers saw Branch B.

Branch A

Approximately how many times have you volunteered?

When you first volunteered, what motivated you to do so? Pick the reason closest to what motivated you.

- ❍ I felt obligated because I take part regularly
- ❍ I was supporting and hadn't started running
- ❍ I'd heard that runners were supposed to volunteer three times a year
- ❍ I was curious
- ❍ Someone else persuaded me to
- ❍ I was injured and wanted to stay involved
- ❍ I was part of the core team setting up a new parkrun
- ❍ I needed to fulfil requirements for another activity e.g. Duke of Edinburgh Awards
- ❍ I wanted to give something back
- ❍ Other (please state) _____

When you're volunteering, what do you enjoy most? Choose up to 3 answers.

- ❑ Encouraging the runners
- ❑ It gives me a good feeling for less effort than running
- ❑ Earning/wearing the purple volunteer tee shirt
- ❑ The sense of belonging
- ❑ Seeing faster runners
- ❑ We have cakes/sweets for volunteers
- ❑ Making new friends
- ❑ Feeling valued
- ❑ There's nothing I enjoy about volunteering
- ❑ Other (please state) _____

Did you have any concerns before you volunteered?

	Not at all concerned	Slightly concerned	Moderately concerned	Very concerned
I'd mess up	❍	❍	❍	❍
I'd be harassed	❍	❍	❍	❍
I'd be cold	❍	❍	❍	❍
I'd be allocated a job I didn't want	❍	❍	❍	❍
I'd have to get up early	❍	❍	❍	❍
Other (please state)	❍	❍	❍	❍

What do you like least about volunteering? Choose up to 3 things.

- ❑ I don't always get my favourite job
- ❑ Missing my run
- ❑ Getting cold/wet while standing around
- ❑ Getting up earlier
- ❑ Getting a job I didn't want
- ❑ Turning up and finding there are too many volunteers and I don't have a role
- ❑ There's nothing I dislike about volunteering
- ❑ Other (please state) _____

Branch B

Please mark on the scale how much you agree/disagree with the following statements about volunteering:

	Disagree strongly	Disagree moderately	Neither agree nor disagree	Agree moderately	Agree strongly
I don't know much about it	❍	❍	❍	❍	❍
I hadn't considered it	❍	❍	❍	❍	❍
I'm worried I'll mess up	❍	❍	❍	❍	❍
I haven't got round to it	❍	❍	❍	❍	❍
I'd rather run than volunteer	❍	❍	❍	❍	❍

To what extend do you agree/disagree with the following statements about volunteering?

	Disagree strongly	Disagree moderately	Neither agree nor disagree	Agree moderately	Agree strongly
Volunteering seems a bit cliquey	❍	❍	❍	❍	❍
I don't feel confident enough	❍	❍	❍	❍	❍
I'm not sure how to get involved	❍	❍	❍	❍	❍
I don't have time to volunteer	❍	❍	❍	❍	❍
I'm worried that I might get harassed	❍	❍	❍	❍	❍

Please could you mark on the scale the extent to which you agree/disagree with the following statements about volunteering:

	Disagree strongly	Disagree moderately	Neither agree nor disagree	Agree moderately	Agree strongly
I didn't know parkruns were run by volunteers	❍	❍	❍	❍	❍
I'd want to know more before committing	❍	❍	❍	❍	❍
I'm worried I'll be stuck on my own somewhere	❍	❍	❍	❍	❍
I already volunteer for another organisation	❍	❍	❍	❍	❍

To what extent do you agree/disagree with the following statements about volunteering?

	Disagree strongly	Disagree moderately	Neither agree nor disagree	Agree moderately	Agree strongly
There are loads of marshals already so I don't need to	❍	❍	❍	❍	❍
I don't want to find myself constantly having to volunteer	❍	❍	❍	❍	❍
I'm worried I'll be uncomfortable (getting cold/wet/needing the loo)	❍	❍	❍	❍	❍
I can't run much during the week, so I don't volunteer because I need my run	❍	❍	❍	❍	❍

Note: All participants were then shown the questions on the following pages

How would the following affect your decision to volunteer or not?

	I'd volunteer less often/be less likely to volunteer	It wouldn't make any difference	I'd volunteer more often/be more likely to volunteer
People were encouraged to volunteer 3 times a year	❍	❍	❍
People were encouraged to volunteer after every x number of parkruns (e.g. every 15 or 20 parkruns)	❍	❍	❍
There was a prize draw every month for volunteers	❍	❍	❍
Future rosters were laid out at every parkrun for people to sign up	❍	❍	❍
There were volunteer teeshirts for 50 and 100 times volunteering	❍	❍	❍
Volunteers got a discount at the cafe	❍	❍	❍
Volunteers were provided with cake or chocolates	❍	❍	❍

Did you know you get a purple milestone technical tee shirt once you've volunteered at 25 parkruns?
- ❍ Yes
- ❍ No

Does the volunteer tee shirt make you more likely to volunteer?
- ❍ Very much so
- ❍ Somewhat
- ❍ No, I wouldn't be more likely to volunteer
- ❍ Not sure
- ❍ I've already got a volunteer tee shirt

What else could parkruns do to encourage people to volunteer more often? [free text response]

As part of this research, we will be carrying out some interviews to find out more about some participant's thoughts on volunteering at parkrun. If you are happy to be contacted by a researcher about this, please add your email in the box below. This doesn't obligate you to take part in any further research if you decide you don't want to. [free text response]

Thank you for completing this survey. If you have any comments you'd like to pass on, please use the space below. We appreciate your feedback! [free text response]

Clicking on the forward arrow will submit your responses.

[1] Principal components analysis was carried out with Oblimin rotations. Cronbach's alpha calculations led to further refining of the underlying constructs.

[2] Chi square effect sizes were assessed using Cramer's V for 3 x 2 tests, with 0.1 indicating a small effect, 0.3 indicating a medium effect, and 0.5 indicating a large effect (Cohen, 1988). The *phi* coefficient was used to report one 2 x 2 chi-square test comparing awareness of volunteering tee-shirts among volunteers and non-volunteers.

[3] Effect sizes were assessed using Cramer's V for 3 x 2 tests, with 0.1 indicating a small effect, 0.3 indicating a medium effect, and 0.5 indicating a large effect (Cohen, 1988). The *phi* coefficient was used to report one 2 x 2 chi-square test comparing awareness of volunteering tee-shirts among volunteers and non-volunteers.