Strava-using parkrunners: a community study

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8,157 Strava-using parkrunners completed an online survey over a three-week period in February/March 2018. The research sought to appraise the impact of Strava and parkrun on well-being and motivation to exercise, and to explore the nature of Strava functioning as a community, or 'social network for athletes'. The study confirmed the positive impact that both Strava and parkrun are reported to have on the lives of Strava-using parkrunners.

❶ **Well-being**. Strava-using parkrunners report very high levels of overall happiness and the vast majority self-report to be in good "general health". When asked directly about the impact of Strava and parkrun on specific aspects of wellbeing, it is found that the majority (two thirds) report positive effects on self-confidence and happiness and almost one-half report positive impact on body shape, body image and body weight.

❷ **Impact and performance**. Typically, Strava-using parkrunners report four reasons for taking part in parkun and six reasons for using Strava. The most common reasons for parkrun participation are performance related (to improve fitness and to compete against their own times), while the ability to record performance and maintain a record of it is the most commonly held reason for using Strava. When asked directly about the impact of using Strava and parkrun participation on performance, a strongly positive picture emerges, with the majority reporting improvement in terms of general fitness, times over 5k and full routes and motivation to exercise.

❸ **parkrun as a community**. There is much evidence to support that parkrun functions as a community or shared running experience, with the majority participating most regularly at a local parkrun and with a strong sense of belonging to it being reported. Travelling to parkrun with, or meeting others at parkrun is experienced by many, while many also report running parkrun alongside friends and family, rather than completing it as a solitary run. Over one-half of Strava using parkrunners report that it has improved their social life.

❹ **Strava as a community**. Strava also functions as a community, consistent with its self-positioning as the social network for athletes. The vast majority are members of clubs or groups on Strava, with almost one half of these reporting at least a fairly strong attachment to these groups. Two fifths also report that using Strava has had a positive impact on their social life.

❺ **Athletic identities**. At the outset of parkrunning, a range of running identities were reported by Strava-using parkrunners with regular runners/joggers (34%), found alongside non-runners/joggers (24%) and occasional runners/joggers (42%). At the present time, two thirds of Strava-using parkrunners identified as being "runners" (66%), almost one in ten self-identifying as tri/athletes (8%) and almost one in five as parkrunners or joggers (19%).

Introduction

Strava and parkrun

Founded less than ten years ago, Strava was reported to have achieved more than one million active users worldwide as of March 2015. Strava presents itself as the 'social network for athletes'. For example, in addition to allowing users to maintain a record and to analyse their own athletic activities, it affords the opportunity for users to follow other users, to give kudos and comment on others' activities, to create their own collectives of groups/clubs, and it groups together activities that are completed by different users at the same time and place.

First held in 2004 in London, parkruns are free, weekly five kilometre running events, organised by local volunteers, currently taking place in eighteen countries, across five continents. It was reported in November 2017 that the four millionth parkrunner had been registered. parkrun's aspiration is to have an event in every community that wants one.

Strava-using parkrunners

parkrun offers users the facility to link their parkrun and Strava accounts. Exploring the experience of this particular group of Strava users and parkrunners is interesting on two counts. First, given that Strava is a service that is pitched 'for athletes', it is a means to explore the specific experiences of parkrunners who are particularly concerned with performance (as opposed to, or instead of, participation). Second, it is a means to explore the extent to which Strava can enhance the experience of parkrunning.

The Brief

The research team was presented with an open brief, based around the broad challenge of delivering a sociological study that considered "the impact of parkrun and its community" and to explore "the happiness and motivations of the parkrun and Strava communities". Further considerations were suggested in the brief, i.e. using an agreed index to measure happiness, which allowed Strava-using parkrunners to be compared to the general population; exploring impact in terms of wellbeing, mental health and body image and ascertaining the potential power of community (through a social network for athletes) to enhance motivation.

The evidence reported in this briefing has been weighted to ensure that the results are representative of Strava-using parkrunners.

Introduction to this research briefing

This briefing delivers a concise summary of the research findings. It is organised into five thematic summaries, the key points from each being shared in a single page of the briefing.

First, findings in relation to well-being are presented (page 3). Two established measures of happiness were administered, each of which allowed the experiences of Strava-using parkrunners to be compared to the general population. More directly, users were asked to evaluate whether their parkrun participation and use of Strava had had a positive, neutral or negative effect on a range of issues. Finally, this section reports from users in their own words on the way in which Strava impacts on the parkrun experience.

Impact and performance is considered on page 4. Having described how parkrun is completed relative to the ability of others, attention is turned to consider performance-based reasons for using Strava and parkrun participation and on reporting on the perceived impact of each on performance. This section ends by considering users' thoughts on the impact that Strava makes on parkrunning.

Community dimensions of parkrunning are reviewed on page 5. First patterns of participation are described in terms of having a local parkrun, accessing the parkrun and group running. Social reasons for parkrunning and the impact of parkrunning on social life are considered, before giving consideration to their attachment to their local parkrun.

These issues are then explored for Strava (page 6), i.e. the perceived impact of Strava on social life, membership of groups on Strava, attachment to these groups, and the use of wider social media to share Strava data.

The penultimate thematic section of the briefing addresses athletic identities (page 7). Here, we consider pre-parkrun "running identity", which is juxtaposed with current athletic identities (multiple and primary). Consideration is then paid to the perceived impact of parkrun and Strava on body image. We conclude the substantive analysis with a 'focus on gender' (page 8)

The briefing concludes by providing key information about the development and administration of the survey, and the representativeness and profile of the survey population (pages 9 and 10).

Well-being

On well-being

In many developed nations, national performance is not only measured in terms of the economy, but extends to consider societal and personal well-being. In the UK, for example, 41 measures of national well-being have been identified by the Office for National Statistics, with data being updated twice yearly, with 4 indicators also identified to measure personal well-being. In this research, we are particularly concerned with those aspects of overall well-being that pertain to happiness and general health.

Happiness

When asked directly, an overwhelming majority reported that parkrun had had a positive impact on their happiness (89%), while two thirds reported that using Strava had had a positive impact on their happiness (69%).

The Oxford Scale of Happiness is widely accepted and used as a reliable tool in social research. Strava-using parkrunners are found to be overwhelmingly happy according to this scale, with more than one in four returning a strongly positive result (23% had an average score of 5 or more on the 6 point scale). 94% of Strava using parkrunners were found to have an index score that was not negative. The average score of Strava-using parkrunners on the Oxford Scale of Happiness was 4.4, which is higher than the value of just over 4 that is widely held to be the average level of happiness expressed through this scale. The findings suggest that Strava-using parkrunners tend to be happier than the general population.

These positive results were confirmed by a second measure of happiness. Using the same ten-point scale of happiness that is used by ONS to estimate personal well-being, fewer than one in ten Strava-using parkrunners graded themselves on the 'negative' (i.e. unhappy) side of the scale. The mean score was 7.36 on a scale that ranged from not at all happy (0) to completely happy (10).

General health

An overwhelming majority of Strava-using parkrunners reported that their general health was good - with 45% reporting that it was "very good" and a further 46% reporting that it was good, 91% combined. The vast majority of the remainder reported "fair" health (9%), with few reporting bad or very bad general health.

In comparison, in 2016 75% of adults in England reported their health as very good or good, with similar proportions for adults in Scotland (2015 data).

Perceived impact of parkrun on well-being

parkrun was reported to have a positive impact on the well-being of Strava-using parkrunners, with a majority reporting a positive impact on their body shape (58%) and how they felt about their body (59%), and one half reporting a positive impact on their body weight (51%). Even more positive, was the report of positive impact on self-confidence (74%).

Perceived impact of Strava on well-being

As with parkrun, many Strava-using parkrunners reported that Strava had a positive impact on their well-being. Although no impact on body shape, weight or how they felt about their body were the most common evaluations (52%, 55% and 52%, respectively), a sizeable proportion of Strava-using parkrunners did consider that their use of Strava had had a positive impact on their body shape (48%), weight (45%) and how they felt about their body (47%). More clearly, was the report of positive impact of using Strava on self-confidence (64%).

Indicative Quotes on Well-being

"Exercise always makes me feel better. Even when I don't want to go for a run I never regret it afterwards. I'm running my first Marathon this year and that's down to motivation gained through Strava."

"It can be hard to draw a line and say that Parkrun has helped with something, or Strava has helped with something else, in terms of the mental and physical wellbeing, but it is safe to say that the two work extremely well together to produce a positive experience and improved wellbeing."

"The combination of Parkrun and Strava has made sense of running for me where previously I could not see the point... the little bit of (self) competition, tracking statistics and self-organising community has made a huge impact on me in the last 6 months that has made me healthier and happier."

Impact and Performance

On impact and performance

parkrun regularly shares personal biographies of the transformative impact of parkunning on participants, while both parkun and Strava afford the means for users to appraise their performance against a range of benchmarks and in a variety of different ways. In this research, we were interested to explore the personal impact that Strava-using parkrunners perceived.

parkrunning and performance

The experience of parkrunning in relation to ability was canvassed by asking for those who participated with others. One quarter only ran with those who were slower than them (26%), while just over two thirds either ran with those of the same or less ability, but never with those faster than them (36%). Almost two fifths of parkrunners ran with those who were typically faster than them (38%).

Performance-based reasons for parkrunning

Typically, Strava-using parkrunners identified four reasons for taking part, with maintaining fitness (66%) and competing against their own times (85%) being the most common reasons.

Competing against others was ranked less importantly (it was the seventh most common reason cited from a list of eight), although 31% still cited this as a reason for parkrunning. Participating to get fitter (63%) was commonplace, although slightly more participated to maintain, rather than improve, fitness (66%).

Performance-based reasons for using Strava

Typically, Strava-using parkrunners identified six reasons for using Strava, with – unsurprisingly – the ability to record performance or time reported as the most common reason (95%).

The ability to compare performance is reported as a reason for using Strava by many Strava-using parkrunners, with 86% reporting that they used it to compare performances against previous ones, 56% to compare against people that they knew and 47% to compare against people who had completed the same route.

Beyond comparing performance, 63% of Strava-using parkrunners reported that they used Strava to stay motivated.

Perceived impact of parkrun on performance

parkrun was reported to have a strongly positive impact on the performance of Strava-using parkrunners, with an overwhelming majority reporting a positive impact on how fast they could run 5k (92%), and on their general fitness (89%). parkrun was also reported by a clear majority to have a positive impact on their motivation to exercise at other times of the week (80%).

Perceived impact of Strava on performance

As with parkrun, Strava-using parkrunners reported that Strava had a strongly positive impact on their performance, with clear majority reporting a positive impact on how fast they could cover full routes (72%), and segments on longer routes (71%). Strava was also reported by a clear majority to have a positive impact on general fitness (80%) and on their motivation to exercise (83%).

Monitoring performance through Strava

One in five reported looking at Strava several times per day (19%), which taken together with the almost one third who looked at Strava once per day (28%), gave a sizeable proportion of frequent users. Of the remainder, the vast majority either consulted Strava "most days" per week (25%) or "a few days" per week (22%).

The difference that Strava makes to parkrunning

Three-fifths of respondents reported that using Strava had enhanced their parkrun experience (61%).

Indicative thoughts on performance

"Parkrun is the reason I am running. I never thought I was a runner. My first parkrun was 34 mins now I've got to 24.54 in just 12 months. It is a great place to meet like minded people and stay fit and healthy. I can't praise parkrun more for being such a positive thing in my life."

"Parkrun and strava have helped encourage me to participate in sport and push myself to improve".

"Strava and parkrun are both great. They are free both encourage you to perform at your best."

parkrun as a community

On the parkrun community

Many of the parkrun narratives project the sense of parkrun as a community of runners. In this research, we explored the ways and extent to which Strava-using parkrunners used and identified with parkrun as a community.

Patterns of participation I: venue

The majority of Strava-using parkrunners reported having a 'local parkrun', in which they tended to participate, although they sometimes took part in others (56%). In contrast, one quarter only took part in their local parkrun (28%), while one in seven did not have a clear 'local parkrun' and tended to spread their participation across several parkruns (16%).

Patterns of participation II: organising parkrun visits

For many, the way in which a parkun is accessed is a social experience. Almost one-half of Strava-using parkrunners report that they had travelled to parkrun with friends and family (48%), while one in five pre-arranged to meet others at parkrun (21%) and one quarter routinely met others at parkrun without having pre-arranged to do so (28%).

Patterns of participation III: group running

Although it is most common for Strava-using parkrunners to complete parkrun alone (78% had reported so doing), parkrun is also experienced as a group run, with many reporting running with friends or family.

The full spectrum of experience was reported by those who ran with friends or family, with 15% running with those who are faster than them, 21% running with those of the same ability and 19% running with those who are slower than them.

Perceived impact of parkrun on social life

parkrun was reported to have a positive impact on their social life by a majority of Strava-using parkrunners, (55%).

Social reasons for participating in parkrun

As noted previously, although not the most common reasons that were identified for parkrunning, 'social reasons' are far from insignificant, with 46% reporting that they participated to meet people that they knew and 25% participating to meet new people.

Attachment to local parkrun

The vast majority of Strava-using parkrunners reported a strong attachment to their local parkrun, with almost one in three reporting a "very strong" sense of belonging (30%) and more than two out of every five reporting a "fairly strong" sense of belonging (43%). Only one in twenty reported that their attachment to their local parkrun was "not at all" strong (5%).

Indicative quotes on parkrun as a community

"The positive community on strava and at parkrun is what keeps me going back. It's a great environment to be in.

"Strava and park run both help people to stay connected, feel part of something, help people to stay in touch and link up and be part of joint activity"

"Parkrun is great! if you stop running people around you will ask you if you are ok. This is very important to support others struggling and parkrun is a good way to help people push themselves."

Strava as a community

On the Strava community

Projecting Strava as a 'social network for athletes' emphasises the importance of Strava as a collective tool and experience, in addition to its role as a performance management or monitoring tool for individual athletes. In this research, we explored the key ways in which Strava was used as a shared experience.

Perceived impact of Strava on social life

Although the most common evaluation was that Strava use had no impact on the social life of Strava-using parkrunners, use of Strava was reported to have a positive impact on their social life by more than two-fifths of survey respondents (44%).

Group membership through Strava

An overwhelming majority of Strava-using parkrunners reported that they were a member of a Strava group or club (88%).

Attachment to Strava groups

Those who were members of groups/clubs on Strava, were asked to describe their sense of belonging to these groups. At the surface level, a spread of experience was reported, with one in ten reporting a "very strong" attachment (11%), and a further one third reporting a "fairly strong" attachment (34%). On the other hand, a "not very strong" attachment was reported by two fifths of group members (41%), while one in seven perceived that their attachment was "not at all strong" to Strava clubs/groups.

Using social media to share Strava data

Although Strava functions as a 'social network for athletes', it also affords the opportunity for users to share their Strava data on other social network platforms. The majority of Strava users were split between not sharing their Strava data on other platforms (48%) and occasionally sharing their Strava data (43%). A very small proportion (3%) always shared their Strava data more widely, while almost one in ten Strava-using parkrunners reported not using social media at all (7%).

Indicative quotes on Strava as a community

"*They are my couch to 5k group so it's quite a strong bond as we all started from approximately the same place and we're all quite supportive of each other*"

 "*My running group are on Strava so even when I cannot run with them I can support them and when I exercise on my own they can and do support me*"

 "*We encourage each other and share routes etc. It just gives a sense of community*"

Athletic identities

On athletic identities

Although it might be argued that any identification with an active lifestyle is positive – be it as a jogger, parkrunner, runner or athlete – it is interesting to explore the extent to which Strava-using parkrunners associate with particular active lifestyle identities.

Pre parkrun 'running identity'

Strava-using parkrunners reported a range of running identifies at the start of their parkrunning. At one extreme, over one third described themselves as "regular runners/joggers" (34%), while at the other almost one quarter described themselves as "non runners/joggers" (24%); most common was the identification as being an "occasional runner/jogger" prior to starting parkrun (42%).

Primary athletic identity of Strava-using parkrunners

Of those who were able to identify a primary athletic identity from one of the following six options – athlete, triathlete, runner, jogger, parkrunner or cyclist (a further 5% provided an alternative primary sporting identity) - more than two thirds of Strava-using parkrunners.identified themselves as "runners" (71%). A non-athletic running identity was held by the majority of the remainder, with 13% identifying as "joggers" and 7% as "parkrunners". Almost one in ten presented an "athletic" identity, with 4% describing themselves as "athletes" and a further 5% identifying themselves as "triathletes". The remainder (7%) identified themselves as being primarily a "cyclist".

Perceived impact of parkrun on identity

As reported earlier in *Well-Being*, although a common experience was that parkrunning had no impact on how Strava-using parkrunners felt about their body (40%), and although a small minority considered that parkrun participation had effected a negative impact on their body image (1%), it is significant to note that the most common perception was that parkrun had exerted a positive impact on their body image (59%).

Perceived impact of Strava on identity

As reported earlier in *Well-Being*, although the most common experience was that use of Strava had no impact on how Strava-using parkrunners felt about their body (52%), it is also significant to note that a sizable proportion perceived that their use of Strava had exerted a positive impact on their body image (47%), in sharp contrast to the very small proportion of users who reported a negative impact on body image as a result of using Strava (less than one half of one per cent).

Key Quotes on Athletic Identities

"parkrun was absolutely key in me becoming a regular runner. The friendly and welcoming atmosphere encouraged me to come back week after week, year after year and that routine got me from not running at all to running half marathons. Strava has enhanced my enjoyment of parkrun by connecting me with people I see every week and building a community beyond the Saturday morning parkrun. As I am not a member of a club it has introduced me to people who are and give me great running advice. I'm a big fan of both!"

"I wouldn't have become a regular runner if it wasn't for park run and my local group"

"Parkrun is simply brilliant, supportive, inclusive, I could go on. Parkrun and Strava: intrinsically linked with my journey from unfit & fat to where I am now; 4 stone lighter & running up to half marathons. I have dozens of new friends who I now know in person & dozens of people I can support & encourage in return. Parkrun & Strava - both make me happy!!!"

Focus on gender

Introduction

We have conducted supplementary analysis to explore the existence or otherwise of gender differences in the results for the following themes: happiness (Well-being theme), body image (Identity theme) and motivation (performance theme).

Happiness

When using a single-item measure of happiness, the majority (59%) of respondents reported themselves to be 'very happy', with the vast majority of the remainder (32% of all respondents) rating themselves 'slightly happy'. No gender differences were found in these results.

However, when we measured happiness using the Oxford Scale of Happiness, we found that women were marginally more likely to score at the lower end of the scale (31% of women, compared to 27% of men whilst men were more likely to score at the upper end of the scale (30% of men, compared to 27 of women). These differences were statistically and substantively significant.

Results were a little bit more modulated when we looked at the impact of parkrun and Strava on happiness and well-being and its relationship to gender. Thus, women were more likely to report that parkrun has a positive impact on their self-confidence (83% of women, compared to 68% of men) as does Strava (68% of women, compared to 62% of men).

Women are also slightly more likely to report that parkrun has a positive impact on their happiness (91%, compared to 88% of men). However, the relationship was reversed for Strava: men were more likely to report that Strava has a positive impact on their happiness (71% of men, compared to 66% of women).

Body image

Men are more likely than women to report that parkrun has a positive effect on their weight (53% of men, compared to 47% of women). This also holds for Strava (49% of men reporting that it had a positive impact on body weight, compared to 39% of women). No significant differences were evident between men and women in terms of the impact of parkrun on their body shape (59% of men reporting positive impact, compared to 57% of women).

The association between gender and the impact of Strava on body shape was stronger, with men more likely to report a positive impact (51% of men, compared to 43% of women). In contrast, women were more likely than men to report that parkrun (has a positive impact on body shape (64% of women, compared to 55% of men)

Motivation

Women were more likely than men to report that parkrun motivated them to exercise (83% vs 77%). In contrast men were more likely than women to report that they used Strava to stay motivated (64% vs 60%).

Concluding Thoughts

In exploring gender differences it is important to note that some associations, although statistically significant, should still be approached with caution. In particular, it is important to stress that, the majority of both men and women reported that they were happy.

However the impact of parkrun and Strava varied across all three themes. Women derived more self-confidence from parkrun and Strava than men. If either of these were going to influence happiness, we could say that parkrun had a more positive impact for women, whilst Strava had a more positive impact for men.

In addition, it appears that men were more likely to attribute positive effects on their body image and confidence to Strava, where women were more likely to attribute positive effects on these to parkrun.

It would be unwise to attribute causality to these patterns at this stage. More analysis needs to be carried out to explore whether parkrun and Strava appeal differently to men and women because of pre-existing gender differences in the disposition to exercise, which reflect broader gender norms.

About the study

Development of the survey

The authors designed a bespoke survey in 2018 in conjunction with Strava and Fusion Media. Wherever possible, harmonised survey questions and pre-tested tools were used to facilitate comparison with the general population for aspects of well-being. The survey adhered to standard ethical protocols for survey research. The survey was pre-tested with thirty Strava-using parkrunners, with revisions made in accordance with feedback.

Survey distribution and sample size

Strava e-mailed Strava-using parkrunners in the UK on Sunday 18th February with introduction and a weblink to the online survey. The survey closed on Monday 12th March, with one further reminder sent on Saturday 24th February. The final survey population was 8,157.

Determination of sample representativeness

On request, Strava provided details of the gender and age composition of the total population of Strava-using parkrunners. The decision was taken to use proportionate weights for age and gender combined to ensure that the survey population would represent the broader Strava-using population from which it was drawn.

Approach to analysis

Numerical data were transferred into a statistical software package (SPSS) for data analysis. Data were cleaned, transformed and manipulated as necessary (e.g. to compute the values for the Oxford Happiness Index from the eight separate indicators that comprise the index). The basic response pattern was described, before appropriate tests of association and correlation were applied according to the level of data (nominal and ordinal throughout). One member of the research team (McKendrick) led this analysis, with other members quality assuring the analysis and interpretation. Qualitative data (open-ended responses) were drawn from the database and were transferred to a separate Word file for analysis. We undertook a combination of thematic and content analysis to identify recurring patterns. Tulle and Bowness led the analysis of the qualitative data, with McKendrick quality assuring the analysis and interpretation.

Profiling the sample population I: parkrun experience

A range of engagement with parkrun was reported among survey respondents. Almost one quarter of survey respondents have been parkrunning for less than one year (24%), with an equivalent proportion parkrunning for between one and two years (26%). At the other extreme, almost one in eight had been parkrunning for five years or more (12%). Similarly, one third described themselves as participating "every week" (33%); taken together with the one quarter who described themselves as parkrunning "every fortnight" (24%), the survey population comprised a substantial proportion of frequent parkrunners, although almost one quarter did not parkrun more than "a few times per year" (22%). A similar spread of experience was evident for number of parkruns completed with one in five reporting fewer than ten completions (22%), while at the other extreme one in eight respondents had completed at least one hundred parkruns (13%).

Profiling the sample population II: use of Strava

As for parkrun, a wide range of Strava using experience was reported among the survey population. One in three had been using Strava for less than one year (33%), with a similar proportion being users for between one and two years (31%). Of the remainder, a small proportion had been Strava users for at least five years (5%). The vast majority reported uploading their data every time they exercise (76%). As reported in *Impact and Performance*, one in five reported looking at Strava several times per day (19%), which taken together with the almost one third who looked at Strava once per day (28%), gave a sizeable proportion of frequent users. Of the remainder, the vast majority either consulted Strava "most days" per week (25%) or "a few days" per week (22%).

Profiling the sample population III: running patterns

The majority of Strava-using parkrunners reported running on most days – but not every day – of the week (62%), with one in five running once per week in addition to parkrun (25%). A range of experience was reported with regards to exercising in groups – the most common experience was that Strava-using parkrunners tended to exercise on their own, but would sometimes exercise in groups (47%), although

About the study

one in four also mainly exercised in groups (27%), 4% always exercised in groups, almost one in four rarely exercised in groups (17%) and a minority never exercised in groups (4%).

Profiling the sample population IV: demographic & socio-economic profile

In the unweighted sample, a wide range of age groups were surveyed, with 21% aged under 30, 35% in the 30s, 30% in their 40s and 14% aged 50 or older. Similarly, two fifths of respondents were women (44%).

In the weighted sample, one in five Strava-using parkrunners reported having a physical or mental health condition or illness that had lasted, or was expected to last, for at least one full year (18%). One in ten were the lone adult in their household (12%), 2% lone parents and 10% lone adults, with the remainder living with other adults, but being divided between those living with children (46%) and those not (41%). Almost two thirds of respondents perceived that they were middle class (62%, as opposed to working class), while 71% perceived that they were 'middle income' earners. Representation was received from every nation and (ex-) Government Office Region across the UK.

About the Authors
The authors are all members of the Sport and Identities research collective at Glasgow Caledonian University. They are all social scientists, and outside of academia are all runners, parkrun participants and Strava users.

Further Information about this research
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