**“Triggered by the sound of other runners”: An exploration of parkrun mentions in mental health hospital records in the UK**

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**Funding Sources**

GAF was funded by a Canadian Institutes of Health Research (CIHR) Doctoral Fellowship throughout this research.

Community-based physical activity is beneficial for individuals with mental illness. In the past decade, free, 5-kilometer community-based runs organized by the parkrun organization have grown in popularity. With the increasing use of physical activity as a multimodal treatment of mental illness, parkrun participation may have clinical implications. Engagement in parkrun by individuals with mental illness is unknown**.** The purpose of this study was to examine discussions of parkrun in electronic mental health records to understand the parkrun experiences of those living with mental illness. A qualitative observational study of electronic health records of parkrun mentions in a secondary mental health service in London, England was conducted. Anonymized records of over 500,000 patients, including inpatients and outpatients, were searched and retrieved to identify mentions of parkrun. Thematic analysis was used to organize the findings into key themes. The sample included 175 individuals with mental illness (55% female, mean age 33 years), and 333 mentions of the parkrun running program. The findings from the thematic analysis were organized into 4 themes: i) More than Just a Run; ii) Clinicians as Gatekeepers; iii) The Role of parkrun in Recovery; iv) When parkrun Isn’t Always for Everyone. These findings can be used to make parkrun a more welcoming and inclusive place for those experiencing mental illness, for example by providing mental health training to event organizers and volunteers. Furthermore, the findings may also inform current policy discussions on the importance of social recovery for service-users.

**Keywords:** physical activity; running; community-based recreation; mental health recovery

**Introduction**

There is a well-documented relationship between mental health and physical activity (PA). PA may prevent conditions such as anxiety and depression and is also a form of adjunctive treatment for diagnosed anxiety, depression, and psychosis (Ashdown-Franks et al., 2019; Schuch et al., 2018; Schuch et al., 2019). In two meta-analyses of prospective cohort studies, higher levels of PA across the lifespan were found to be protective of incident depression and anxiety (Schuch et al., 2018; Schuch et al., 2019). Notably, PA was found to be particularly protective against incident agoraphobia and posttraumatic stress disorder (PSTD; Schuch et al., 2019). Further, PA delivered in a structured and supervised manner is used to effectively manage symptomology across anxiety and stress disorders, schizophrenia, and depression (major depression and pre- and postnatal depression; Ashdown-Franks et al., 2019). PA has also been reported to reduce depression in children and adolescents, and to improve global cognition among children with attention deficit hyperactivity disorder (ADHD; Ashdown-Franks et al., 2019). In addition, there is growing evidence to support the role that recreational and leisure activities (such as sport or PA) can play in the recovery and social inclusion of individuals experiencing mental illness (Fenton et al., 2017). Indeed, sport and exercise participation can allow individuals to redefine their identities by providing them with a leisure identity rather than solely an identity of an individual with mental illness (Fenton et al., 2017; Jeanes et al., 2018). More broadly, such participation may provide the context for social connections and a sense of community, and in this way reduce feelings of social isolation (Darongkamas et al., 2011).

Given the benefits, there has been an increased interest in PA and sport programming for mental health service-users. This increased interest has been seen in research in inpatient settings, outpatient settings, secure wards, and community-based contexts. One specific example is the context of secure mental health hospitals, where the perspectives of inpatients (Rogers et al., 2021) and of healthcare assistants (Kinnafick et al., 2018) have been explored to understand PA programming on the wards. Specific sport programming for male service-users has included soccer/football (Benkwitz & Healy, 2019; Benkwitz et al., 2019; Jeanes et al., 2018; Taylor & Pringle, 2021) and rugby (Wilcock et al., 2021). Walking programs in mental health services for men and women have also been documented (Cooley et al., 2020; Hubbard et al., 2020). While sport and PA programming is promising, a key limitation is the exclusivity of the participation since the opportunities do not support interaction between service-users and the general public. Scholars have suggested that challenges with integrating community and services may stem from healthcare workers, recreation workers or those with mental illness not valuing the role that recreation may play in recovery, while stigma is also posited to be a further barrier (Litwiller et al., 2016). Such segregation may further exacerbate prejudices towards those with mental illness whereas integrative programming is likely to support connections extrinsic to the treatment facility thereby potentially decreasing stigmatizing views towards those with mental illness (Fenton et al., 2017; Gallant et al., 2020). Integrative programming is fostered in community settings.

Running is a specific PA with established benefits for physical and mental health (Pereira et al., 2021; Oswald et al., 2020). Organized community-based events via the parkrun organization have grown in popularity and engagement, with the UK currently hosting over 1,000 events per week. These are free, 5-kilometer (km), volunteer-led events, wherein participants are encouraged to walk or run. The parkrun initiative is citizen-led and community-based, and emphasizes the importance of community cohesion, mutual support, and friendship alongside the importance of physical and mental health benefits of participation (parkrun, 2018). While individuals of all ages are welcome at parkrun events, some parkrun locations also offer weekly 2 km junior parkruns for children between the ages of 4-14.

To date, some research has examined the impact of parkrun on mental health (Morris & Scott, 2018; Quirk et al., 2021), well-being (Grunseit et al., 2018), PA (Stevinson et al., 2014) and community-building (Bowness et al., 2020). These studies have reported that parkrun can play a role in supporting mental health and well-being, in promoting PA and in fostering community-building. In the only study to include individuals with serious mental illness (SMI), Morris & Scott (2018) captured the experiences of those having had previous or current mental health difficulties- mainly with anxiety and/or depression. They reported that participants experienced parkrun as a welcoming and non-threatening environment and suggested that parkrun may represent a different form of mental health support as opposed to more traditional healthcare settings (Morris & Scott, 2018). Nonetheless, little evidence for the parkrun experiences of those with SMI exists, which is particularly concerning when considering that parkrun may appeal to those experiencing mental health challenges. Specifically, previous parkrun research with over 60,000 UK participants found that after arthritis, anxiety and depression were the second and third most common long-term conditions experienced by parkrunners (parkrun, 2019). Therefore, a more comprehensive exploration of parkrun experiences for a wide range of mental illnesses, and in different contexts (i.e., inpatient vs. outpatient) is warranted.

In 2017, parkrun surveyed 1,868 healthcare professionals and found that 63% currently prescribe parkrun, and of those who prescribe it, 78% report doing so to improve patients’ mental wellbeing (parkrun, 2017). In 2018, an initiative was formally launched between parkrun UK and the Royal College of General Practitioners to encourage general practices by “prescribing” activity rather than drugs to patients (Iacobucci, 2018). Over 800 UK general practitioner (GP) practices have formally endorsed parkrun and are signed up as ‘parkrun practices’ which involves promoting and referring patients to parkrun (Royal College of General Practitioners, 2018). Consistent with the benefits of PA for mental health recovery, and that clinicians value the connection between parkrun and health, the Bethlem Royal Hospital parkrun was established in 2019. This run takes place on the grounds of a National Health Service (NHS) mental health trust, and is open to members of the public, staff and service-users. Given the context, this specific parkrun presents a novel opportunity to break down barriers between service-users and the public, which could ultimately lead to less stigmatizing views towards those with mental illness (Jeanes et al., 2018; Tew et al., 2012). Changing public perceptions of those with mental illness is an important step towards social inclusion, especially given that social exclusion and stigma can be debilitating aspects of a mental health condition (Davis, 2013).

Access to anonymized electronic medical records may provide a unique view of service-user and clinician communications about parkrun, and PA more broadly. Further, in examining these records, the views, and attitudes of mental health clinicians towards parkrun can also be ascertained. The naturalistic observational nature of this study allows for these conversations to be understood in a real-world way, and mental health clinician views towards parkrun, or referral pathways for the runs, have yet to be empirically explored.

The present study provides a unique and novel manner of exploring experiences of individuals with the Bethlem parkrun, alongside other parkruns more broadly, from the perspective of the clinician creating the mention. Specifically, the case of the Bethlem parkrun may be unique from other forms of PA as the activity takes place on the grounds and therefore common logistical barriers such as costs or transportation are not experienced. It is also possible that discussing and prescribing a program such as parkrun (for walking, running, or volunteering) may be inherently different than prescribing service users to other more structured exercise referral schemes. It is important to explore the experiences and views of mental healthcare clinicians on this specific form of PA and the role it may play in mental health recovery.

Therefore, the purpose of this study is to examine discussions of parkrun in electronic mental health records from the South London and Maudsley trust to understand service-user experiences of the runs through the perception of the clinician. A secondary purpose is to explore clinicians’ views of parkrun and understand the clinical and logistical processes involved in supporting service-user parkrun involvement. Guided by a pragmatic research philosophy, the findings from this project may provide impetus for future parkruns to be started on the grounds of other NHS mental health trusts.

**Methods**

**Setting and Sample**

Data from this qualitative observational study were provided by the South London and Maudsley NHS Foundation Trust (SLaM) Biomedical Research Centre (BRC) Clinical Record Interactive Search (CRIS) database. SLaM provides the largest range of mental health services in the UK, represented by three hospitals (Bethlem and two others) and 230 services including community services, outpatient, and inpatient wards (SLAM, 2021). SLaM covers 4 boroughs of South-East London, and also has over 50 specialist services for individuals from across the UK. As such, while inpatient service-users may have engaged with parkrun after its initiation at the Bethlem, it’s also possible that a broader range of individuals accessing outpatient or community-based services may have participated in other parkruns in the London area.

CRIS provides an electronic clinical record of clinical information that has been recorded when a patient comes into contact with SLaM. As such, CRIS has information on over 500,000 cases, and can be used to search and retrieve de-identified anonymised full patient records. Further details regarding the database have been published elsewhere (e.g., Perera et al., 2016). Participants for the current study were drawn from the CRIS database. The sample was purposefully selected from a CRIS database free-text search of the terms ‘parkrun (s)’ or ‘park run(s).’ This search encompassed any adults or children (under the age of 18) who had accessed care within SLaM from the inception of CRIS (2006) to March 2021. Any service-user whose records document mentions of parkrun at least once was included in the sample. Clinicians were also integral aspects of the sample, as they will be the ones who will have recorded said discussions of parkrun with patients.These clinicians may be any member of staff within SLaM, and information regarding their role will also be noted and examined.

Ethics approval for the research use of CRIS-derived anonymised databases was granted by an independent Research Ethics Committee (Oxford C, reference 08/H0606/71) and for this study by the CRIS Oversight Committee (18-100). Ethical approval was also granted by the University of Toronto Research Ethics Board. A further review by the CRIS Oversight Committee was conducted upon completion of the manuscript, to ensure there were no risks to identification.

**Data extraction**

Free text notes served as the unit of analysis. These notes contain details of contacts between patients and clinicians, as well as communications between professionals regarding patients’ care. The downloaded notes with parkrun(s)’ and ‘park run(s)’ were read, and text relevant to the study was manually extracted and moved to an Excel spreadsheet for further analysis. The notes were automatically anonymized whereby mentions of the patient use ‘ZZZ’, mentions of other individuals (e.g., other clinicians, friends, colleagues, family members) use ‘QQQ’, and mentions of specific parks or geographical locations are identified as ‘XXX.’

**Analytic Strategy**

Descriptive analysis involved recording details (demographic and health status) of patient demographics (*N*=175) from their records, while details and categories of clinicians discussing parkrun were also included: psychologist, nurse, psychiatrist, occupational therapist, physiotherapist, social worker, exercise instructor and student (which included trainees or fellows). Type of service (inpatient vs outpatient) was also extracted and recorded for descriptive purposes.

Guided by a pragmatic philosophical perspective, an inductive thematic analysis of all 333 mentions was conducted with the data as the analytical starting point (Terry et al., 2017). This inductive analysis sought to understand individual experiences and allowed for the data, rather than any pre-existing codes, to determine the themes. Thematic analyses have been used in electronic healthcare research, such as suicidality (Choo et al., 2018), neonatal care (Shaw et al., 2019) and transplantation research (Butler et al., 2020). Thematic analyses were used with the CRIS database in an analysis of mental health service responses to human trafficking (Domoney et al., 2015).

Pragmatism guided the analysis and interpretation through an emphasis on the utility of discovered findings for practical use (Morgan, 2014). Pragmatism acknowledges that knowledge results from multiple experiences and is inherently social (Morgan, 2014). This perspective also recognizes the role that historical, cultural, and political conditions play in constructing knowledge (Giacobbi et al., 2005). In line with a relativist ontology, ‘truth’ is relative to the current situation, and the role of the researcher and their experiences and background cannot be ignored (Tamminen & Poucher, 2020).

For this analysis, Braun & Clarke’s (2006, 2019, 2020) steps for reflexive thematic analysis were followed. For this analysis, Braun & Clarke’s (2006, 2019, 2020) steps for reflexive thematic analysis were followed. Reflexivity involves the researcher “continuously and rigorously reflect[ing] on their own taken for granted thinking” (Ho et al., 2017, p.1760).

Therefore, it is important to acknowledge the ways in which the primary researcher’s position and biases may have influenced her ‘taken for granted thinking.’ At the time of the data extraction and analysis, the primary researcher (GAF) was very new to parkrun as a participant and had taken part in less than ten events as a runner or volunteer. Furthermore, her female, White, thin-identifying, able-bodied, non-service- user and non-clinician identity and experiences likely shaped the ways in which she extracted, analysed, and interpreted the data.

The reflexive thematic analysis first included GAF familiarising herself with the data by repeatedly reading over the mentions. Then, initial codes were generated, with codes consisting of related content subsequently being organized into potential themes. From here, potential themes and subthemes were identified. GAF’s six years of education and experience within the field of physical activity and mental health played a role here, and she consistently reflected on the ways in which her knowledge of physical activity and mental health theory and mechanisms impacted her reflexive thematic analysis. At this point, a second researcher (CMS) also became involved in the analysis. This second researcher, or ‘critical friend,’ was separate from the data extraction process and critically reviewed GAF’s initial themes and interpretations (Smith & McGannon, 2018). The ‘critical friend’ offered feedback and alternate interpretations, which the pair discussed. These discussions involved CMS challenging GAF’s biases assumptions and suggesting other viewpoints and interpretations (Smith & McGannon, 2018). In line with the pragmatic paradigm, the two researchers refined and finalised the themes and subthemes, with the aim to present the findings in a way that would be clinically and practically relevant. A further review by the patient chaired CRIS Oversight Committee was conducted upon completion of the manuscript, to ensure there were no risks to identification. This review also ensured that participant voices were being respected, accurately represented, and prioritized.

**Results**

After removing invalid mentions (*n* = 29), such as those clearly talking about “park run” as a run in the park rather than the organized event, a final sample of *N* = 333 mentions was purposefully selected; 237 (71%) of the mentions took place in a team or outpatient context, while 89 (27%) were in a ward/inpatient unit. Clinician types included 66 psychologists, 53 nurses, 48 psychiatrists, 45 occupational therapists, 11 physiotherapist, 8 social workers, 4 dietitians and 2 exercise instructors. 22 mentions were recorded by clinicians in training; students, trainees or fellows. The final sample comprised mentions from 175 individuals whose demographic and health status information are displayed in Table 1. Individuals could have multiple mentions of parkrun in their records.

**Table 1.** Sample characteristics (*N*=175) of service-users with parkrun mentions in records.

|  |  |
| --- | --- |
| **N (%)** |  |
|  |  |
| **Age (years) Mean (SD); range** | 33.7 (15); 7-71 years |
| **Age Categories** |  |
| 0-9 years | 1 (0.6%) |
| 10-19 years | 44 (25%) |
| 20-29 years | 32 (18%) |
| 30-39 years | 39 (22%) |
| 40-49 years | 33 (19%) |
| 50-59 years | 15 (9%) |
| 60-69 years | 10 (6%) |
| 70-79 years | 1 (0.6%) |
| **Sex** |  |
| Female | 97 (55%) |
| Male | 77 (44%) |
| Other | 1 (0.6%) |
| **Ethnicity** |  |
| Not Stated/Missing | 26 (15%) |
| Black/Caribbean/Black & British/Mixed race- W & B African/Any other Black background | 27 (15%) |
| Asian/Asian British/Any other Asian background/White and Asian | 5 (2.85%) |
| White/White British/Any other White background | 108 (62%) |
| Any other ethnic group/ Any other mixed background | 9 (5%) |
| **Marital Status** |  |
| Cohabiting | 3 (1.7%) |
| Divorced/civil partnership dissolved/separated | 3 (1.7%) |
| Married/ Civil partner | 17 (9.7%) |
| Single | 102 (58%) |
| Widowed | 1 (0.6 %) |
| NA/Not Known | 49 (28%) |
| **Lives with** |  |
| Alone | 10 (6%) |
| Children Only | 2 (2%) |
| Father | 1 (0.6%) |
| Mother | 14 (8%) |
| Friends | 4 (2%) |
| Other | 7 (3.5%) |
| Parents | 35 (20%) |
| Partner | 6 (3%) |
| Partner & Children | 7 (4%) |
| Not Known | 89 (51%) |
| **Health characteristics** |  |
| **Primary Diagnosis1:** |  |
| Organic, including symptomatic, mental disorders | 2 (1%) |
| Mental and behavioural disorders due to psychoactive substance use | 4 (2%) |
| Schizophrenia, schizotypal and delusional disorders | 32 (18%) |
| Mood [affective] disorders | 28 (16%) |
| Neurotic, stress-related and somatoform disorders | 28 (16%) |
| Behavioural syndromes associated with physiological disturbances and physical factors | 29 (17%) |
| Disorders of adult personality and behaviour | 6 (3%) |
| Disorders of Psychological Development | 6 (3%) |
| Behavioural and emotional disorders with onset usually occurring in childhood and adolescence | 15 (9%) |
| **Medication within 6 months either side of mention2 (N=223 mentions)** |  |
| Antipsychotics | 106 (47%) |
| Antidepressants | 109 (48%) |
| Mood Stabilizers | 37 (17%) |
| ADHD medications | 19 (9%) |
| No medication | 58 (26%) |

*Notes:*

1. Diagnoses are grouped by ICD10 Category(World Health Organization, 2004)

2.Numbers are referring to the frequency within each medication, not in total, and people can be taking multiple medications at once.

The findings from the thematic analysis were organized into 4 themes: A) More than just a run; B) Clinicians as gatekeepers; C) The role of parkrun in recovery; D) When parkrun isn’t always for everyone.

**A) More than just a run**

Throughout the records it was evident that parkrun was much more than just the physical run itself. It was clear that for many service-users, the volunteer aspect was just as important. Many records spoke of the importance of the social or community aspect of the runs, and often doing parkruns as a family activity. The creation of the Bethlem parkrun also resulted in infrastructure that had a lasting impact.

***Giving back***

In numerous records, mentions of parkrun volunteering came up. These included mentions that individuals were actively volunteering in parkrun or were interested in starting to volunteer. Inpatients and outpatients both had mentions, for example from the outpatient perspective: “He continues to run regularly and was interval training last night with a friend. He enjoys cycling. He participates in various running clubs and events. He volunteers at his local parkrun.” While from an inpatient perspective, some individuals used their leave to volunteer: “Due to go out on leave at the commencement of early shift to XXX to volunteer as usual for the park run [sic].” In some cases, volunteering in parkrun was referenced to describe how an individual was doing, “You told us that things are going well for you. You are volunteering for parkrun.”

The benefits of volunteering were also recorded. For example, “She has also agreed to volunteer at parkrun which also puts her out of her comfort zone, and is something she discussed wanting to do in an attempt to add things to her pie chart that can give her a sense of self-worth.” Other records spoke of the impact of volunteering on mood, and on their sense of community connection, for example, “ZZZ appears more engaged in the local community - he described assisting in organising the local Park Run [sic].” Alongside potential for community socialization and interaction, volunteering may also have provided a sense of purpose, “… [he] volunteers for parkrun which makes him feel positive especially when people say thank you.” In some cases, clinicians recommended parkrun volunteering, rather than running itself. A series of mentions in one individuals’ record detailed the phases that they went through with the clinician when considering parkrun volunteering: “Discussed volunteering at the XXX ParkRun [sic] as its outside, in the early morning and something ZZZ has historically enjoyed doing (supporting marathon runners). He was keen on this idea and agreed I would email to find out more information on the process.” A later mention notes that:

“He is also keen to sign up to volunteer at XXX park run [sic] and we started this process online today, he plans to complete this process independently. He hopes it might inspire him to get back into running in the future.” Subsequently, it appeared that the individual ultimately signed up as a volunteer, “Discussed voluntary work at ParkRun [sic] and ZZZ enrolled to his first shift on Saturday 18th May which he is looking forward to.” Finally, the final mention suggests the individual had a positive experience with volunteering, which may have led to further engagement: “Did his first session at ParkRun [sic] a few weeks ago which he enjoyed. He will bare [sic] this in mind to sign up again in the future.”

***Sociality***

Many mentions spoke of being involved in parkrun as a family, or alongside family members. Given that this specific mental health trust specializes in eating disorders, and indeed has pioneered a method which emphasizes the role of the whole family in eating disorder treatment (i.e., Family-Based Treatment, FBT), there were various discussions of family and parkrun, in the context of eating disorders. For example, one clinician mentioned, “ZZZ has also started to exercise in a way that was balanced and not driven by illness, such as enjoying Park Run [sic] with her mum on Saturday mornings.” In another subsequent mention from the same individual, it was explained that “Her relationships with her parents has been much better as they are spending more time together outside of the eating disorder (e.g. going on a park run [sic]).” For some, participation in the runs with family was a way of safely easing back into PA:

She was interested in restoring exercise to her normal routine. She felt she did not want to return to athletics training as she did not feel ready to commit to it but did want to start doing a 5K park run that was a weekly community run in the park that her mum and brother also took part in. She mentioned there being cake at the end which she was enthusiastic about. We spoke about balancing risks and the importance of returning to a normal life.

Clinicians recommended parkrun specifically because of its family friendly nature, for example the family of a child who was being assessed for attention deficit hyperactivity disorder (ADHD) were provided with information on the runs: “The family were also recommended to build on ZZZ 's strengths and interests including his love of running and football. The family were made aware of swimming clubs and a running club and park run [sic] at XXX Park.” One clinician provided information on the runs, and suggested their patient be further supported by their brother: “He reported that he has started running again and is finding this beneficial. Spoke about local park runs [sic] which he would like to do. Advised to register for this which he will ask his brother to support him with.”

The welcoming and inclusive nature of the runs for families was described in numerous accounts, for example the fact that strollers are encouraged: “She reported that they had done a park run [sic]as a family (QQQ in the buggy) and that this felt positive.” The self-paced and non-competitive nature was also viewed as a positive: “ZZZ and mum have started attending the XXX, 2K Park Run [sic] and they are enjoying the run and are going at a pace that feels comfortable for them.” In a later mention in that individuals record, the importance of this was noted: “You used an activity diary to look at the link between activity and mood...It was significant to you when you were able to take part in Park Run [sic] as a family.”

It was also made clear that the social and community aspects of parkrun were important motivators, and benefits, of participation. In several instances, records spoke of friendships created at Parkrun [sic]. For example, “You said you have met people from your running club who have come the closest to what you would call friends. You have known them for two years. You meet weekly for a park run [sic] and then have a coffee. You said these are people you are 'friendly with'… You said you can adapt to change and have been challenging yourself to do things that are out of your comfort zone such as…joining a park run [sic].” Similarly, another record described: “Patient soon to move to own flat Other significant others Friends and sister supportive, parkrun friends.” Other records spoke of longstanding friendships which began at parkrun. The social opportunity following the runs, where participants are invited to have a warm drink, also arose many times, and in some cases, the coffee afterwards seemed equally important as the running aspect.

Clinicians also recognized the inherent positives of the social nature of the run and encouraged service-users to take part both for the fitness and social benefits. While clinicians valued the social aspect of the runs, some also recognized the need to support their patients in socialising at the runs, as one explains: “Session focussed on developing targets for the healthy adult mode, in particular around socialising with others at the park run[sic] ZZZ attends at weekends.” Conversely, for some individuals, the runs were also enjoyed when they were done by themselves: “The only time ZZZ has to herself is on a weekly park run [sic] every Saturday, a new arrangement which gives her some head space. Dr QQQ highlights the importance of finding this space without being isolated.”

Another unique impact of the newly created parkrun at this mental health trust was the opportunity for service-users to socialize with fellow community members. While this socialization can evidently take place during the runs themselves, it seems to be possible even for those who have not partaken in the run. One record explains a patient: “On arriving at the Community Centre it was found that the café was closed but the Park Run [sic] organisers were distributing hot drinks for a small donation.” This effect is noteworthy, as it suggests that even among inpatients who may not want to or are otherwise unable to participate in the runs, they may still ultimately be involved in the Bethlem parkruns through attending the social portion after the run.

***Lasting impact of the creation of parkrun infrastructure***

The introduction of parkrun on the grounds of this mental health trust allowed for infrastructural changes beyond the run itself. There were discussions of the use of the “park run [sic] route” outside of actual parkrun events. For example, one clinician explained how a service-user, “Was escorted out in the early afternoon by 1 RMN [nurse]…and it went very well. ZZZ lapped the park run route and engaged well in conversation with no attempt to abscond.” This was echoed in another mention: “After walking outside the grounds and smoking cigarette, ZZZ requested to spend the hour going for a walk around the fields on the grounds… ZZZ told me that he enjoyed the walking round the fields and agreed for me to register him for park run [sic].” This was mentioned again by another member of staff about a service-user, who after enjoying a walk around the grounds, indicated interested in going on a parkrun.

**B) Clinicians as gatekeepers**

Clinicians played a vital role in supporting and tangibly facilitating service-users’ parkrun involvement. This appeared to be dictated by the extent to which clinicians valued the use of PA, and specifically running, for mental health.

***Clinicians valuing exercise & parkrun for mental health***

A wide range of clinicians valued the use of exercise for mental health, including senior clinicians and student clinicians (e.g., student nurses, student occupational therapists, trainee psychologists). Many clinicians seem to value the use of the runs for mental health and conveyed this in different ways. In some instances, parkrun was viewed as part of an overall healthy lifestyle and to improve quality of life: “I discussed general lifestyle recommendations with ZZZ, in particular abstaining from caffeine and other drugs, taking up regular exercise, and adopting a healthy diet. We discussed Parkrun [sic] and Couch to 5k.” The emphasis of parkrun’s effect on self-esteem was also discussed in various mentions: “We discussed boxing (he used to do this and has also previously done Tai-Kwondo), Park Run [sic] and going jogging. QQQ said that she would encourage this and might try to get QQQ involved as well (he is apparently a good runner). I think some vigorous exercise would be good for ZZZ 's self-esteem, anxiety management and ADHD-related symptomatology.” Overall, many clinicians expressed valuing exercise for various facets of mental health.

Given the frequency of comorbidities among individuals with mental illness and the side effects that some forms of psychiatric medications can entail, some patients needed to be given permission, or cleared, before participating. Depending on the politics, bureaucracy or staffing of the ward, sometimes the scheduling of these assessments could delay an individuals’ parkrun initiation: “He wanted to participate in park run [sic] this morning advised to be assessed next week and he can run this coming Saturday next weekend.” Taken together, the varied situations of service-users may necessitate unique and personalized support and encouragement from staff. Implications around resource-intensiveness and sustainability of service-user participation must also be considered.

***Functions of Support: Clinicians supporting service-user parkrun involvement***

Hospital staff supported service-users to participate in parkrun in various ways. These included emphasizing its accessible, friendly and non-competitive nature:

“ZZZ said she used to go running however she hasn't been doing this recently because she is worried about it being too serious/competitive at local clubs. I gave her information about parkruns (5k social runs at local parks on Saturday mornings), she was very interested in this and said she would follow this up.” In other cases, this support came in the form of encouragement and praise. One service-user was commended for their parkrun involvement:

You have also started participating in the Park Run [sic] at XXX Park. It was great to hear that you went independently and took part. There is a real sense of community at these events and hope when your shifts allow it is something you continue to attend. Overall you have worked really hard in this area. Regularly engaging in exercise has a number of physical and mental health benefits, as well as reduces isolation and lifts mood. You should very proud of the commitment and dedication you have made to exercise and I hope you continue to reap the rewards from it.

Not only did this clinician commend them for participating, but they simultaneously expressed their views on the importance of exercise, and of the community-based nature of the runs. Many discussions were had between clinicians and service-users regarding the option of taking up parkrun. These included: “We discussed Parkrun [sic] as a further means of getting some aerobic exercise (ZZZ could Google his local Parkrun [sic] and print off the free barcode so that he can watch his times improve when he runs).” The cross-sectional nature of this research generally precludes the ability to know whether these patients registered for and participated in the runs. However, in one example, the long-lasting effect of these discussions was seen. A clinician initially suggested joining parkrun: “She is open to therapy. We discussed exercise as she previously enjoyed Netball playing in a team and will explore joining a team here and I suggested she looked at Parkrun [sic]” In that same individual’s record, two years later, it was noted that, “when well, plays Netball / Park run [sic].” This type of specific referral pathway appears to offer support.

Not only did clinicians value parkrun and encourage it, but some went above and beyond to facilitate patients’ participation in the runs. This included registering service-users for parkruns, facilitating leave for parkrun participation, providing running attire, and attending parkruns alongside patients. However, the records also highlight the authority that clinicians hold since service-user participation is often supported by clinicians. In some situations, when service-users indicated interest in parkrun, they were encouraged and directed to sign up for the runs online. In others, clinicians actually registered participants, for example: “Please see enclosed registration paperwork for ZZZ for the run. He has been given printed copy of bar code and staff will offer it to him, explain registration all done for him.” Three years later, mentions of this individual volunteering in parkrun were seen in their records, pointing to the important role these clinicians played in engaging them in parkrun. This also alludes to the flexible nature of parkrun and the various involvement opportunities that range from running to volunteering.

Given the nature of the mental health trust, some wards were secure wards, meaning that in order to participate in the runs, individuals on secure wards had to first gain permission to do so. This included for the run on the grounds of the hospital, as well as for runs in other locations. For some, this leave would need to be escorted: “Staff to take her on park run [sic] at nurses' discretion depending on mental state and availability of staff. She can have only one staff member as she will remain in grounds - Please be vigilant near gates and around perimeter of grounds.” For others, leave could be unescorted, such as a service-user whose request to leave the grounds for parkrun and coffee afterwards was approved: “Unescorted leave care plan was reviewed collaboratively and now incorporates support…” The decision to grant or refuse leave for parkrun was observed to take into consideration one’s risk of absconding, as well as safety risks: “Asked by Nursing Staff to review ZZZ's decision to go on parkrun this morning… Risks since this review are unchanged. ZZZ denies suicidal ideation/planning and will be doing parkrun with her brother locally (XXX Park) who will be with her throughout her time off the ward. They have the ward's number and will let the nursing team know their whereabouts.” Overall, permissions to leave are under the discretion of the clinician and this is important for consistent participation planning and goal-setting.

Service-users were also supported to train for parkruns, through the provision of running equipment. For example, “We agreed that I will get her a new pair (of running shoes) in the January sales (from parkrun donations) so that she can get involved.” For some individuals with specific anxieties around travelling to and participating in parkrun, clinicians facilitated their engagement by training or participating with them. Specific forms of support were outlined, such as behavioural exposures (BE): “ZZZ and myself jogged around the grounds of XXX this morning. ZZZ commented that he is getting fitter and would be interested in entering a 5k Park Run [sic] in his local area but would need some support to conduct BE's around bumping into people who he might know.” It was noted later on in their records that they were subsequently planning to attend the parkrun with an occupational therapist from the trust. In a different example, a clinician explained, “ZZZ and I travelled to XXX Park in XXX via bus. We then ran the XXX 5K Park Run [sic] along with 200 other runners.” While the commitment of these staff members is commendable, accompanying service-users is likely resource-intensive and unsustainable.

**C) The role of parkrun in recovery**

Like the clinicians, many service-users spoke of valuing parkrun for mental health, for example, the individual whose “mood 6/10 dropped by a point because her parkrun had been cancelled,” or the service-user who, “did a Parkrun [sic] this week which she feels has helped her mental state.” The journey to the runs itself was also noted as significant: “We thought together with ZZZ 's mum about how she could help ZZZ to keep practicing the things we've done. They identified on the way to parkrun as a good time to talk about how they were feeling....” As described throughout the medical records, parkrun served various roles in individuals’ mental health recovery, for example by acting as a type of treatment, as a goal, or as a source of achievement and pride.

***parkrun as treatment***

The therapeutic potential of parkrun was spoken of in broad ways, such as being a “key coping mechanism,” or as a tool for someone “trying approach of healthier lifestyle before meds.” The therapeutic effects of parkrun were also mentioned in the context of more specific conditions and symptomology; anxiety/ OCD, substance use, and, when prescribed carefully, for those with eating disorders. parkrun was reported, “To manage significant anxiety and panic, ZZZ reported to have developed a set of routines e.g., having to do parkrun, breakfast and visiting market every Saturday. Uses safety behaviours to prevent anxiety/panic.” As an example of exposure therapy, “although this activity can make her anxious, it [parkrun] was something she enjoyed so worthwhile facing her anxiety.” The runs also served as a form of behavioural activation in those with obsessive-compulsive disorder (OCD) and depression, and as a distraction for substance use “…benefit of identifying early warning signs; strategies already using- distraction- writes in diary, contacts friends/ family to talk to… exercise (particular- going for a run; joins parkruns on weekend mornings when feels able).”

Given the evident dangers of a running program for those with eating disorders, parkrun cannot and should not be advised or encouraged as freely as it might be for other conditions. This was exemplified in the case of one individual who, “is sensibly cautious about re-starting running and will avoid running alone as in the past she has found it difficult to limit.” Therefore, various forms of modifications were suggested among eating disorder patient records, including nutritional intake and weight management (e.g., “ZZZ also agreed that if she loses weight this [parkrun participation] will be suspended.”), and eliminating the timed nature of the parkruns (“Still doing the Park Run [sic] on Saturdays and not handing in her time slip as she agreed”). While running may not be safe for all individuals experiencing or recovering from eating disorders, the opportunities for socialization and other benefits necessitate modifications to support safe participation for some individuals.

***parkrun & the idea of progress***

In many records, service-users or clinicians discussed running or walking at parkrun as an aim to recovery. In many care plans, it was mentioned as a short term or longer-term goal (e.g., “Discussed about planning an activity… Parkrun [sic]…to prevent him feeling he has nothing to do on the weekend and not feeling motivated to do anything when the day comes and he hasn't planned anything.”), or as a process to achieve another goal (e.g., “Be able to be a normal 16 y o - Get back to sport- running, tennis, netball, parkrun”). For some, parkrun was viewed as a stepping-stone to another fitness goal, such as a 10km race, or a military-style fitness class, though most mentions of parkrun as a goal framed the runs (or walks, in some cases) as their ultimate goal. A clinician and service-user also spoke of reviewing goals, one of which included: “Developing platonic relationships- this is something you currently do via the parkrun.” Participation in the runs was also understood to be part of broader occupational and vocational goals, such as transitions from inpatient treatment to home, and in many cases were framed as a gradual and safe way to re-engage in PA. Other mentions pertained to striving for parkrun as a goal: “but there are other signs of progress & activity that I can look at elsewhere in the stream to feel more positive & encouraged about or look ahead to in terms of overcoming barriers on my recovery journey & I'm sure I will tackle the parkrun challenge head on soon enough.” And there were many mentions of the sense of mastery, achievement, and pride of parkruns (e.g., “still enjoys this Park run [sic] with mum every Saturday, did this last sat - always top ten to finish” or “Park run [sic] achieved, which will become a weekly event”).

**D) Sometimes for some but not always for all: When parkrun isn’t always for everyone**

In some records it was suggested that parkrun may not be safe or healthy for everyone, and in some cases may even be dangerous. Various accounts spoke of aspects of the runs that did not cater to those with mental health conditions. Furthermore, for many individuals, it appeared as though fluctuations in their mental state, or their health in general, dictated their participation, meaning that the extent of their participation depended greatly on their condition each day. The runs were also at times experienced as exclusionary places.

***parkrun as potentially dangerous***

While the runs are framed as non-competitive, the fact that they are timed, and performed alongside others, naturally creates a context for comparison and for competition. Though some clinicians suggested modifications to dampen the competitive nature of the runs, most individuals participated in the runs without these adaptations. One family expressed concern about how this may be impacting their child: “ZZZ completes in the 'Junior Park Run [sic]' with QQQ and QQQ. 18 months ago he was the fastest. As the daughters trained, QQQ became faster than ZZZ. Parents wondered how much this affected ZZZ.” Another participant’s account detailed a series of events, including parkrun, which culminated in suicidal ideation:

We chain analysed the behaviour: she said it had been a thought in her mind since last Wed when she had felt very low… Sat morning she had gone on park run [sic] with her sister and her sister had a better running time than ZZZ which led to thoughts such as "I can't even do this". She said she was planning her "escape" which included writing a note, which she handed to me in session.

While less commonly reported, it is important to consider that parkrun may not be a safe experience for everyone with mental illness.

***Aspects of parkrun that do not cater to those with mental illness***

Though many service-users reported benefits to their symptomology as a result of their participation, others encountered barriers to their participation as a result of their symptoms, or side effects of their medications. The 9:00 am parkrun start presented several issues around tiredness and lethargy, which was discussed in many records. For example, one service-user expressed interest in participating, and was assisted by staff to register, but then “did not appear particularly motivated to attend due to lethargy.” Another individual, “retired to bed at 22:30 told staff he is waking up early to take part in park run at 8AM this morning on the grounds he remains asleep at time of report.” This barrier was also experienced by outpatients, for example the individual who reported, “I had set my alarm to go to parkrun but as I hadn’t slept much I didn’t want to get up Stayed in bed until late.” Having recognized the difficulties with the early morning start, some service-users and clinicians talked about sleep plans “so he can wake up early on Saturday and go to a Park Run.”

The experience of parkrun could also be challenging for those with paranoia or post-traumatic stress disorder (PTSD). The runs can attract hundreds of people each week, which for some may be triggering. One clinician spoke about a service-user experiencing paranoia: “In terms of his paranoid thoughts, he still does have some fears that people will harm him when he comes across large groups of people on his park runs [sic]. He tends to avoid groups of people, will change his course and does ruminate around these experiences.” For another individual with PTSD, he recalled being triggered by the sound of others behind him, particularly by those he wasn’t able to see, and had flashbacks of his time in [military]. He was able to run for 7 minutes before the triggers became too much and he had to walk instead. He was accompanied to the runs by a member of staff, who noted that he was, “able to stay with this anxiety and was able to walk around despite these triggers (which were prevalent throughout) another lap of the course.”

For those with bipolar, fluctuations between manic and depressive states may dictate the ability to participate. For example, one record noted that clinicians were “waiting for ZZZ elated behaviour to reduce so that he can start engaging in his previous activities…To then also look to start attending the gym, swimming and other outdoor activities such as running group (Parkrun [sic]).” Similarly, those living with anxiety and depression described social withdrawal (from parkrun) and lack of motivation. Other apprehensions around the body were also noted: “She was unsure about the idea of a park run [sic] as worried about people looking at her.” Related body-conscious hesitations were echoed by another service-user: “is interested is participating in his local parkrun which is held each week but feels self-conscious and anxious about this and usually talks himself out of it.” Anxieties around running performance were also noted as a participation deterrent.

***Stigma and social exclusion***

The pervasive nature of stigma from service-users themselves, from others around them - including clinicians – was gleaned from the medical records. For some individuals, the context of parkrun was experienced as exclusionary. As one example, a service-user discussed wanting to be a part of a running group specifically for “people with mental health difficulties…As stigma and prejudice of others prevents you from joining a running group (previous negative experience).” One series of interactions illustrated the potential “run-ins” that may happen in a public, community-based program such as this. A clinician emailed a service-user and informed them that they are “one of the core volunteers at the XXX parkrun, so it is highly likely you might see me there when you come along.” The clinician went on to explain:

in order to preserve your anonymity, as people at parkrun know I'm a psychologist in the local area, I wouldn't say hello to you, unless you said hello to me first. I'm aware you might not want people to know you had a therapist and I want you to know that I would not talk to anyone else about you or your presence at parkrun, in order to preserve your confidentiality.

Subsequently, that service-user confided in another member of staff, explaining how, “he has tried hard to avoid the local park since Dr QQQ said they lead the parkrun there, that this is his local park but that he has gone out of the way to avoid it as he had to be "careful." The clinician has conveyed the message that receiving treatment for mental health is shameful and has ultimately dissuaded this individual from joining parkrun.

While many individuals reported valuing the social and community nature of parkrun, others found it to be an exclusionary context for someone experiencing a mental illness. For example, one individual explained:

ZZZ said that he had gone to the XXX park run earlier in the day however he didn't stay to socialise with others on this occasion as he had had a conversation with someone there that he felt was "awkward". ZZZ explained that he was in a conversation and they had asked him "what do you do?" and ZZZ explained to them that he was currently looking for work and trying to get into [work-related occupational] training. ZZZ reflected that he felt awkward because he felt that the individual could tell that he was avoiding the question somewhat. ZZZ reflected that this interaction had also impacted on his decision to not go for a coffee after the event as he sometimes does.

These examples highlight that parkrun, and the coffee following the runs, can be highly exclusionary for those with mental health conditions. As in the case with these examples, this context may be particularly difficult for those who may be longstanding inpatients. These individuals may not have permanent employment, regular hobbies, or a partner or children, which are often the topics of “small talk” conversations.

**Discussion**

This naturalistic observation study guided by a pragmatic research philosophy is the first to examine discussions of parkrun in anonymized electronic mental health records. Overall, discussions occurred with a broad range of clinicians and service-users of varying demographic and mental health statuses. The four identified themes demonstrated the beneficial impact of the runs, layered with practical, logistical, and resource-level barriers that may be targets for future research and program evaluation. The findings, which detail parkrun discussions in the context of secondary mental health services, extend the current knowledge base and literature around PA and mental health.

Previous research on parkrun has identified the run as a place to build community connections and to socialize (e.g., Sharman et al., 2017; Stevinson et al., 2015). The findings from the current study similarly highlight that the events allow service-users to socialize with friends, family, and other local people. For some, the social coffee following the weekly run is just as important and enjoyable as the run itself. However, some service-users felt unwelcome or excluded at the running events. As Davis (2013) has posited, for those experiencing mental illness, the social implications of their illness (e.g., social exclusion and stigma) may be more debilitating and disabling than their symptoms. The social and community-based nature of the events lends itself to small-talk between running participants, however the medical records demonstrated that some service-users found the inherent parkrun social interactions challenging. These findings oppose those which contend that the informal nature of social interaction at parkruns can engage individuals with mental health issues (Grunseit et al., 2020) and that parkrun has a unique ability to engage individuals who are less active and experience constraints to activity, such as those with mental health challenges (Morris & Scott, 2018). Researchers have highlighted the importance of belonging in a social community for those living with long-term conditions (including mental illness), and the “role that parkrun could have in offering inclusive physical activity and volunteering opportunities” (Quirk & Haake, 2019, p.10). However, a wider spectrum of mental illnesses needs to be purposefully studied, understood, and tailored for focused strategies The findings from the current work may provide a starting point and specific considerations for increasing inclusion for those living with mental illness.

Aside from participating in the runs themselves, many service-users also volunteered for the parkrun organization, and in some cases, clinicians encouraged parkrun volunteering as a gateway to running. Consistent with Hallet and colleagues (2020), clinicians explained that volunteering could provide service-users with a sense of achievement, pleasure, and community connection, while also having the potential to make them feel positive and helpful for giving back to their local community. Facilitating parkrun volunteering may be particularly relevant for those who do not feel physically able to partake in the runs but want to be involved and engaged in the experience (Morris & Scott, 2018). The context of the Bethlem parkrun may offer a unique way to explore this as the first parkrun to take place on the grounds of a mental health trust. Of the 35 included studies in Fenton and colleague’s (2017) review exploring the role of recreation in the social inclusion and recovery of those living with mental illness, none examined the experience of volunteering for community recreation programs. Therefore, further research is needed to examine the experiences of parkrun volunteering for those living with mental illness.

In line with research that suggests mental health clinicians are supportive of PA provision (Dejonge et al., 2020; Fleming et al., 2020; McCurdy et al., 2020), clinicians in this sample largely encouraged and facilitated parkrun participation. Support was seen through clinicians’ assistance in registering service-users, provision of running gear, and in many cases their willingness to physically accompany service-users to the runs. Such forms of tangible support are resource-dependent, and in the UK context where austerity measures drive cuts to mental healthcare, relying on these forms of support to foster parkrun participation is not sustainable (Stuckler et al., 2017). In reality, logistical and practical considerations frequently prevented in-patient individuals from participating in the runs (e.g., authority for leaving grounds, lack of available staff support). These constraints have been well documented in PA research with inpatients with SMI (Kinnafick et al., 2018; Martland et al., 2021; Rogers et al., 2021). Given that the current study examined a mental health trust with a variety of wards, it is also important to consider that on secure wards which may house forensic patients, issues of risk and of legal restrictions must be prioritized (Haines et al., 2017; Rogers et al., 2021).

Other reported barriers to individuals’ parkrun engagement related to their symptomology (e.g., sound triggers; physiological arousal) and their medication use. The early-mid morning parkrun start was also a prevalent deterrent, which is not surprising given that lack of energy, sleepiness and lethargy are common side-effects of anti-psychotic medications (Muench & Hamer, 2010) and poor sleep is a barrier to PA (Rogers et al., 2021). The start time of community runs should be a consideration for inclusivity. As another barrier, the timed element of the parkrun was a factor in particular for individuals with eating disorders yet strategies such as not handing in their run token at the end of the run (so their time wouldn’t be recorded and posted) were reported. Broader research on eating disorders and PA suggests that having clear rules, expectations and conditions for exercise progression and regression can be a safe way of using activity to complement standard eating disorder treatment (Cook et al., 2016). Other service-users also described this timing as intimidating, along with the potentially comparative and competitive nature of the runs. These findings contradict parkrun’s contention that it is a non-competitive event and provide a more nuanced and realistic understanding of the parkrun experience for those who may not be “fit” or “fast.” Bowness and colleagues (2021) also described slower parkrunners feeling ignored by faster runners or feeling like a burden. Taken together, the current findings underscore the importance of future research examining parkrun and distinct mental illnesses separately, as the symptoms and treatment of different disorders may have unique implications for participation.

*Practical & Clinical Implications*

The findings from the current study highlight the logistical and institutional challenges with activity referrals and the ways that these may be addressed and may therefore be useful in informing future pathways to care in social prescribing contexts. These findings may be helpful in informing risk stratification through recognising that parkrun provision may be useful for individuals with some conditions, but may not be suitable, safe, or preferred by individuals with other conditions (e.g., acute eating disorders, Chubbs-Payne et al., 2020). It is important to recognise that not all service-users in this study felt included or welcomed at all parkrun events. Training for event organisers and volunteers may be valuable in rectifying this. Indeed, the parkrun organization could heed the advice of Gallant et al. (2020) who have advocated for staff and volunteers in recreational- and leisure-based contexts to complete training to create welcoming and supportive spaces for individuals with mental health challenges. The importance of volunteering, in conjunction with running or on its own, was a further noteworthy finding of this study. Suggestions for implementing this finding in practical or clinical context could include the education of clinicians on the many benefits of parkrun volunteering and the ways that it may be incorporated into service-user care plans, creating formalized referral pathways for both running/walking and volunteering, and ensuring that service-users are informed about the range of benefits that volunteering provides that may contribute to their recovery.

*Strengths, Limitations, and Future Research*

The present study employed unique methodologies to understand the parkrun experiences of those living with mental illness. The inclusion of individuals with various clinical diagnoses, and living in various contexts (e.g., inpatient vs. in the community), is novel for parkrun-based research. Considering the use of integrated physical activity programmes in the care of serious mental illness is an under-explored topic, the inclusion of this rarely heard population group (albeit from the clinician’s perspective) is a strength of this study. Further, the naturalistic observation allowed for an analysis of discussions as they had occurred in “real life” and “real time.” While this is a methodological strength, it also means that the data were founded on the accuracy and completion of patient documentation. Missing or incomplete fields in patient records are not uncommon and are entirely understandable given the UK’s under resourced and overstretched National Health Service (Stuckler et al., 2017). Further, it is possible that a discussion about the parkruns occurred between a patient and a clinician but was not recorded. The audience for whom the clinician intends the case note to be written (e.g., management, fellow clinician, service-user) may also impact the tone and content of the note, and this should be taken into consideration when interpreting the current findings. As such, the study’s main limitation is that it did not directly assess patients’ experiences and attitudes, but rather investigated them via the clinicians’ viewpoints. Future research may seek to assess the parkrun experiences of service-users accessing secondary mental healthcare more directly through interviews instead. The inclusion of individuals of all ages (i.e., children and adults) was a further strength of this research, though due to the smaller proportion of mentions in children and adolescents, mentions from all age groups were analysed together. There remains a dearth of literature examining junior parkrun, therefore future research may seek to focus specifically on the mental health records of children and adolescents. Combining records from multiple trusts may be one way to ensure a large enough sample in this population, and it is possible that the inclusion of trusts in rural and urban areas may have unique outcomes. While in a few cases, the records have allowed for an understanding of the longitudinal aspects of the interactions, in general the cross-sectional nature of this study precluded longitudinal analysis. Future research on parkrun participation and mental health recovery therefore may seek to employ such longitudinal methods and analyses.

**Conclusions**

Previous research has indicated that supporting individuals with mental illness to engage in naturally occurring community-based activity, rather than environments solely designed for those with mental illness, may be a vital part of recovery (Fenton et al., 2017). However, the social dimensions of community-based recreation (Tondora et al., 2014) do not necessarily develop organically, which may lead to feelings of exclusion. Given this, Fenton and colleagues (2017) have suggested that community recreation programs need to emphasize fostering social connections, such as through intentional camaraderie development, for individuals with SMI. Indeed, the potentially exclusionary context of the parkruns, alongside their potential dangers and barriers to those living with mental illness, are feasible targets for modification and support. In line with a pragmatic research philosophy, the current findings may provide a starting point and specific considerations for increasing inclusion for those living with mental illness. The findings of the current study suggest that while challenges exist, participating in parkrun as a runner, walker or volunteer can provide fruitful leisure-based opportunities for recovery for service-users with SMI.

**Conflict of Interests**

Conflicts of interest: none.

While Dr. Brendon Stubbs is a member of the MENPA Editorial Board, he had no involvement in the peer-review of this article and no access to information regarding its peer review.

**References:**

Ashdown-Franks, G., Sabiston, C. M., & Stubbs, B. (2019). The evidence for physical activity in the management of major mental illness: a concise overview to inform busy clinicians’ practice and guide policy. *Current Opinion in Psychiatry, 32*(5),375-380. <https://doi.org/10.1097/YCO.0000000000000526>

Benkwitz, A., & Healy, L. C. (2019). ‘Think Football’: Exploring a football for mental health initiative delivered in the community through the lens of personal and social recovery. *Mental Health and Physical Activity*, *17*, 100292.

Benkwitz, A., Morris, M., & Healy, L. C. (2019). An Ethnographic Study Exploring Football Sessions for Medium-Secure Mental Health Service-Users: Utilising the CHIME Conceptual Framework as an Evaluative Tool. *Journal of Psychosocial Rehabilitation and Mental Health*, *6*(1), 55-65.

Bowness, J., Tulle, E., & McKendrick, J. (2021). Understanding the parkrun community; sacred Saturdays and organic solidarity of parkrunners. *European Journal for Sport and Society*, *18*(1), 44-63.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101.

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health, 11*(4), 589-597.

Braun, V., & Clarke, V. (2020). One size fits all? What counts as quality practice in (reflexive) thematic analysis?. *Qualitative research in psychology*, 1-25.

Butler, C. R., Taylor, J. S., Reese, P. P., & O’Hare, A. M. (2020). Thematic analysis of the medical records of patients evaluated for kidney transplant who did not receive a kidney. *BMC nephrology*, *21*(1), 1-10.

Choo, C. C., Ho, R. C., & Burton, A. A. (2018). Thematic Analysis of medical notes offers preliminary insight into precipitants for Asian suicide attempters: An exploratory study. *International journal of environmental research and public health*, *15*(4), 809.

Chubbs‐Payne, A., Lee, J., Isserlin, L., Norris, M. L., Spettigue, W., Spence, K., & Longmuir, P. E. (2021). Attitudes toward physical activity as a treatment component for adolescents with anorexia nervosa: An exploratory qualitative study of patient perceptions. *International Journal of Eating Disorders, 54*(3), 336-345.

Cook, B., Wonderlich, S. A., Mitchell, J., Thompson, R., Sherman, R., & McCallum, K. (2016). Exercise in eating disorders treatment: systematic review and proposal of guidelines. *Medicine and science in sports and exercise*, *48*(7), 1408.

Cooley, S. J., Robertson, N., Jones, C. R., & Scordellis, J. A. (2021). “Walk to Wellbeing” in Community Mental Health: Urban and Green Space Walks Provide Transferable Biopsychosocial Benefits. *Ecopsychology*, *13*(2), 84-95.

Darongkamas, J., Scott, H., & Taylor, E. (2011). Kick-starting men’s mental health: An evaluation of the effect of playing football on mental health service users’ well-being. *International Journal of Mental Health Promotion, 13*(3), 14-21.

Davis, S. (2013). *Community mental health in Canada, Revised and expanded edition: Theory, policy and practice*. Vancouver, Canada: UBC Press.

deJonge, M. L., Omran, J., Faulkner, G. E., & Sabiston, C. M. (2020). University students' and clinicians’ beliefs and attitudes towards physical activity for mental health. *Mental Health and Physical Activity*, *18*, 100316.

Domoney, J., Howard, L. M., Abas, M., Broadbent, M., & Oram, S. (2015). Mental health service responses to human trafficking: a qualitative study of professionals’ experiences of providing care. *BMC psychiatry*, *15*(1), 1-9.

Fenton, L., White, C., Gallant, K. A., Gilbert, R., Hutchinson, S., Hamilton-Hinch, B., & Lauckner, H. (2017). The benefits of recreation for the recovery and social inclusion of individuals with mental illness: An integrative review. *Leisure Sciences, 39*(1), 1-19.

Fleming, J., Wellington, C., Parsons, J., & Dale, J. (2020). Collaboration between primary care and a voluntary, community sector organisation: Practical guidance from the parkrun practice initiative. *Health & Social Care in the Community*.

Gallant, K., Hutchinson, S., White, C. M., Hamilton-Hinch, B., Litwiller, F., Lauckner, H., & Burns, R. (2020). Reaching out to welcome in: guidelines for socially inclusive recreation settings and programs for people with mental health challenges. *Leisure/Loisir*, *44*(3), 327-351.

Giacobbi, P. R., Jr., Poczwardowski, A., & Hager, P. (2005). A pragmatic research 23 philosophy for applied sport psychology. *The Sport Psychologist,* 19, 18-31.

Grunseit, A. C., Richards, J., Reece, L., Bauman, A., & Merom, D. (2020). Evidence on the reach and impact of the social physical activity phenomenon parkrun: A scoping review. *Preventive Medicine Reports*, 101231.

Grunseit, A., Richards, J., & Merom, D. (2018). Running on a high: parkrun and personal well-being. *BMC public health*, *18*(1), 1-11.

Haines, A., Brown, A., McCabe, R., Rogerson, M., & Whittington, R. (2017). Factors impacting perceived safety among staff working on mental health wards. *BJPsych Open, 3*, 204–211.

Hallett, R., Gombert, K., & Hurley, M. (2020). “Everyone Should Muck In”: A Qualitative Study of parkrun Volunteering and Conflicting Motivations. *Journal of Nonprofit & Public Sector Marketing,* 1-23.

Hindley, D. (2020). “More than just a run in the park”: an exploration of parkrun as a shared leisure space. *Leisure Sciences*, *42*(1), 85-105.

Hombali, A., Seow, E., Yuan, Q., Chang, S. H. S., Satghare, P., Kumar, S., ... Subramaniam, M. (2019). Prevalence and correlates of sleep disorder symptoms in psychiatric disorders. *Psychiatry Research, 279*, 116–122.

Hubbard, G., Thompson, C. W., Locke, R., Jenkins, D., Munoz, S. A., Van Woerden, H., ... & Gorely, T. (2020). Co-production of “nature walks for wellbeing” public health intervention for people with severe mental illness: use of theory and practical know-how. *BMC public health*, *20*(1), 1-12.

Iacobucci, G., 2018. Prescribe parkrun, not drugs, GPs are told. *BMJ (Clinical Research ed.)*, *361*, pp.k2746-k2746.

Jeanes, R., Spaaij, R., & Magee, J. (2018). Football, healing, and mental health recovery. In *Sport, Mental Illness, and Sociology.* Emerald Publishing Limited.

Kinnafick, F. E., Papathomas, A., & Regoczi, D. (2018). Promoting exercise behaviour in a secure mental health setting: Healthcare assistant perspectives. *International journal of mental health nursing*, *27*(6), 1776-1783.

Litwiller, F., White, C., Gallant, K., Hutchinson, S., & Hamilton-Hinch, B. (2016). Recreation for mental health recovery. *Leisure/loisir*, *40*(3), 345-365.

Martland, R., Gaughran, F., Stubbs, B., & Onwumere, J. (2021). Perspectives on implementing HIIT interventions for service users in inpatient mental health settings: A qualitative study investigating patient, carer and staff attitudes. *Journal of Affective Disorders*, *283*, 198-206.

McCurdy, A. P., Lamboglia, C., Lindeman, C., Mangan, A., Wohlers, B., Sivak, A., & Spence, J. C. (2020). The physical activity sector within the treatment of mental illness: A scoping review of the perceptions of healthcare professionals. *Mental Health and Physical Activity*, 100349.

Morgan, D.L. (2014). Integrating qualitative & quantitative methods: A pragmatic approach. Thousand Oaks, CA: Sage

Morris, P., & Scott, H. (2019). Not just a run in the park: a qualitative exploration of parkrun and mental health. *Advances in mental health*, *17*(2), 110-123.

Muench, J., & Hamer, A. M. (2010). Adverse effects of antipsychotic medications. *American family physician*, *81*(5), 617-622.

Oswald, F., Campbell, J., Williamson, C., Richards, J., & Kelly, P. (2020). A Scoping Review of the Relationship between Running and Mental Health. *International journal of environmental research and public health*, *17*(21), 8059.

parkrun. (2018). *A healthier and happier planet*. Website. <https://blog.parkrun.com/uk/2018/04/25/a-healthier-and-happier-planet/>

parkrun. (2019). *parkrun Health and Wellbeing Survey 2018: UK*. Website. <https://awrcparkrunresearch.files.wordpress.com/2020/05/uk-health-and-wellbeing-survey-v5.1-final.pdf>

Pereira, H. V., Palmeira, A. L., Encantado, J., Marques, M. M., Santos, I., Carraça, E. V., & Teixeira, P. J. (2021). Systematic review of psychological and behavioral correlates of recreational running. *Frontiers in psychology*, *12*, 1162.

Quirk, H., & Haake, S. (2019). How can we get more people with long-term health conditions involved in parkrun? A qualitative study evaluating parkrun’s PROVE project. *BMC Sports Science, Medicine and Rehabilitation*, *11*(1), 1-12.

Rogers, E., Papathomas, A., & Kinnafick, F. E. (2021). Inpatient perspectives on physical activity in a secure mental health setting. *Psychology of Sport and Exercise*, *52*, 101827.

Schuch, F. B., Stubbs, B., Meyer, J., Heissel, A., Zech, P., Vancampfort, D., ... & Hiles, S. A. (2019). Physical activity protects from incident anxiety: A meta‐analysis of prospective cohort studies. *Depression and Anxiety*, *36*(9), 846-858. <https://doi.org/10.1002/da.22915>

Schuch, F. B., Vancampfort, D., Firth, J., Rosenbaum, S., Ward, P. B., Silva, E. S., ... & Stubbs, B. (2018). Physical activity and incident depression: a meta-analysis of prospective cohort studies. *American Journal of Psychiatry*, *175*(7), 631-648. <https://doi.org/10.1176/appi.ajp.2018.17111194>

Shaw, C., Suonpera, E., Gallagher, K., Aladangady, N., Stokoe, E., & Marlow, N. (2019). Documentation in the neonatal unit: The support given to parents and their participation in their baby's care. *Journal of advanced nursing*, *75*(3), 628-639.

Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology. *International review of sport and exercise psychology, 11*(1), 101-121.

Stevinson, C., Wiltshire, G., & Hickson, M. (2015). Facilitating participation in health-enhancing physical activity: a qualitative study of parkrun. *International journal of behavioral medicine*, *22*(2), 170-177.

Stubbs, B., Vancampfort, D., Hallgren, M., Firth, J., Veronese, N., Solmi, M., ... Kahl, K. G. (2018). EPA guidance on physical activity as a treatment for severe mental illness: A meta- review of the evidence and Position Statement from the European Psychiatric Association (EPA), supported by the International Organization of Physical Therapists in Mental. *European Psychiatry, 54,* 124-144. <https://doi.org/10.1016/j.eurpsy.2018.07.004>

Stuckler, D., Reeves, A., Loopstra, R., Karanikolos, M., & McKee, M. (2017). Austerity and health: the impact in the UK and Europe. *European journal of public health*, *27*(suppl\_4), 18-21.

Tamminen, K. A., & Poucher, Z. A. (2020). Research philosophies. In The Routledge international encyclopedia of sport and exercise psychology (pp. 535-549). Routledge.

Taylor, D., & Pringle, A. (2021). Investigating the effect of walking football on the mental and social wellbeing of men. *Soccer & Society*, 1-16.

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. In C. Willig, & W. Stainton Rogers (Eds.), *The sage handbook of qualitative research in psychology* (2nd ed., pp. 17–37). London: Sage.

Tew, J., Ramon, S., Slade, M., Bird, V., Melton, J., & Le Boutillier, C. (2012). Social factors and recovery from mental health difficulties: A review of the evidence. *The British Journal of Social Work, 42*(3), 443-460.

Tondora, J., Miller, R., Slade, M., & Davidson, L. (2014). Partnering for recovery in mental health: A practical guide to person-centered planning. John Wiley & Sons.

Warhurst, R., & Black, K. (2021). Lost and found: parkrun, work and identity. *Qualitative Research in Sport, Exercise and Health*, 1-16.

World Health Organization. (‎2004)‎. ICD-10 : international statistical classification of diseases and related health problems : tenth revision, 2nd ed. World Health Organization. <https://apps.who.int/iris/handle/10665/42980>