Not just a run in the park: A qualitative exploration of parkrun and mental health.

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Finally, and most importantly I want to acknowledge my mom, who passed away while I was conducting this research. I am very sad that she will not see me graduate, but am eternally grateful for everything that she did for me throughout my life. I owe more than I can say to her, and she has truly been the most influential person in my life, and so I want to take this opportunity to say thank you to her.

Disclaimer

Paper one has been written with the intention of being submitted to the Mental Health and Physical Activity Journal (Appendix A) and Paper two has been written with the intention of being submitted to the International Journal of Mental Health Promotion (Appendix B). However, for ease of reading a consistent style has been maintained throughout this thesis. All papers have been written in Arial font size 12, and all referencing has been written in APA format (sixth edition), in accordance with Staffordshire University guidelines. Additional material has been included in the write up of this thesis, which will be removed from the manuscript prior to submission for publication.

Word Counts

Thesis Abstract	323
Paper One	9,455
Paper Two	7,518
Paper Three	3,167
Total	20,463

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Paper One: Narrative Literature Review

Appendices

Thesis Abstract

The aim of this thesis is to explore the experiences of people, with current or past mental health difficulties, participating in a community-based mass participation running event. The research also aims to explore the benefits of supporting psychological wellbeing through community involvement and physical activity.

Paper one provides an overview of the current literature examining the psychological and social impact of community-based exercise projects. Nine studies were reviewed. The studies were critically appraised and the findings synthesised. Despite previous research evidence that physical activity is beneficial to mental health and that community-based projects can improve both social inclusion and mental health, the review did not find strong evidence in support of the social and emotional benefits of community-based exercise projects, however research specifically exploring this was limited. The studies reviewed provide only weak evidence that community-based physical activity is socially and psychologically beneficial, but demonstrate potential for such projects to be helpful.

Paper two examined parkrun; a free, weekly, worldwide, five-kilometere running event facilitated by volunteers. Research evidence suggests that many elements of parkrun may be beneficial to mental health such as: physical activity, increased community involvement, being outdoors and volunteering opportunities. This study explored the mental health impact of parkrun on people with an experience of mental health difficulties. Twenty participants were interviewed. A thematic analysis was conducted and three themes identified: “sense of achievement,” “connecting with others” and “it’s for everyone.” The themes identified that participants valued the inclusive and supportive community environment of parkrun. Running was seen as a means of facilitating this, and of giving participants a sense of achievement. Participants universally felt that parkrun was beneficial to their mental health.

Paper three provides a personal reflective account of the process of conducting this research project and writing this thesis. Attention is paid to the background

to the project, the process of writing paper one and paper two, and the context in which the thesis was written.

Word Count: 323

Paper One: Narrative Review

A review of the social and psychological impact of community-based physical activity.

Target Journal: Mental Health and Physical Activity Journal

Word Count: 9455

Abstract

This narrative literature review identified papers systematically concerning the existing evidence investigating the impact of community-based physical exercise on psychological wellbeing and social inclusion. Physical exercise has long been established as being beneficial to mental health and community-based projects have been demonstrated to increase social inclusion and improve mental health. Therefore, physical exercise in a community setting may be both socially and psychologically beneficial. Despite these benefits low levels of physical activity and social exclusion are common in those with mental health difficulties.

Nine articles were reviewed. The findings indicate limited evidence of social and psychological benefits of community-based exercise. There is a lack of research specifically in this area and more research must be conducted before conclusions can be drawn, and recommendations can be made. Limitations of this review are discussed and suggestions for future research are made.

Introduction

Background

In 2008 the New Economics Foundation (NEF) was commissioned by UK government think tank, Foresight, to develop an evidence based report recommending ways to improve mental health and wellbeing. This was considered important given the financial climate in the UK at the time. Government cuts to health and community services, including mental health services continue to this day. Therefore, the financial impact of ill-health, and the impact of service cuts on individuals, are in focus. Therefore, cost-effective ways of improving public health are being sought. The NEF investigation led to the development of the report "Five Ways to Wellbeing" (FWTW) (NEF, 2008). Five key areas were identified: connect (improving relationships with family and the community), be active (increasing physical activity), take notice (being mindful and curious about the surrounding environment, and reflecting on experiences), keep learning (trying something new, taking up old interests and setting challenges) and give (giving to others such as by helping others or volunteering). Since the report FWTW has been adopted by many services including the National Health Service (NEF, 2011).

Community-based physical activity potentially meets all five of these areas. The most relevant areas are: be active and connect, as community-based exercise enables individuals to increase physical exercise and to engage with others. However, it also gives individuals the opportunity to contribute to the community (give), try new activities and develop new skills and interests (keep learning) and be engaged in their environment (take notice). This suggests that physical activity in the community could be beneficial to psychological wellbeing. Such activities can also be cost-effective, as many forms of exercise (such as walking) are relatively inexpensive and accessible. As physical exercise can be beneficial to physical and mental health, increasing levels of physical activity could reduce the impact on both physical and mental health services. For the purpose of this

review community-based activity refers to activities with others, rather than any activity in a community setting, which could be conducted individually.

Despite the mental health benefits of being active and connecting with others, physical exercise levels are low among people with mental health difficulties compared to the general population (Lassenius, Akerlind, Wiklund-Gustin, Arman & Soderlund, 2013), and people with mental health difficulties are some of the most socially excluded people in the UK (Boardman, 2011).

Impact of physical exercise on mental health

The definition of regular physical activity varies, but current Department of Health (DoH, 2011) guidelines suggest that adults (aged 19-64) should engage in 150 minutes of moderate aerobic activity (such as walking or cycling) or 75 minutes of vigorous aerobic activity (such as running) a week in addition to two sessions of strength exercises (such as weight exercises).

The relationship between physical exercise and mental health has been long established. Ross and Hayes (1988) found that increased participation in sports and exercise was associated with better psychological wellbeing and decreased symptoms of depression and anxiety. More recently Skead and Rogers (2016) concluded that physical exercise reduced stress and psychological distress in a sample of 206 University students. Biddle, Fox and Boucher (2000) reviewed the evidence around physical activity and psychological wellbeing and report a positive effect of moderate physical activity on various aspects of mental health. Other studies have demonstrated a positive effect of exercise on different domains of psychological wellbeing: Ekeland, Heian and Hagen (2005) found improvements in self-esteem, Craike, Coleman and MacMahon (2010) found that exercise reduced levels of stress and depression, Zach and Shalom (2016) reported improvements in memory and Karimi and Abdi (2016) reported improvements in sleep. The Mental Health Foundation (MHF) also state that physical exercise can improve mood, stress, self-esteem, anxiety and depression (MHF, 2016).

Physical exercise, of course, also has numerous physiological benefits, such as reducing the risk of developing long-term health conditions, such as heart disease and diabetes (Karjalainen et al., 2012; Sarna, Devlin, Gilliland, Campbell & Zaric, 2015), and generally improving physical health (Swift, Johannsen, Lavie, Earnest & Church, 2014). There is also a negative psychological impact of physical ill-health (Turner & Kelly, 2000). For example, Zippenfening and Sirbu (2014) established that depression was common in sufferers of rheumatoid arthritis as was physical inactivity, and that a moderate intensity physical exercise program improved physical and psychological measures. Di Benedetto et al. (2014) conducted a regression analysis to establish the links between diet, exercise, coping mechanisms and mental and physical health. They found a relationship between depression and chronic illness, and that increased exercise was associated with reduced depression and chronic illness, and that high levels of depression strongly predicted poor physical health. Studies exploring the impact of physical exercise on physical health difficulties such as arthritis (Freburger, Callahan, Shreffler & Mielenz, 2010) and diabetes (Cugusi et al., 2014) also found improvements in psychological wellbeing. This suggests that using exercise to improve physical health, can lead to improvements in mental health.

Impact of community involvement on mental health

Begen and Turner-Cobb (2015) highlight that research has often focussed on the negative effects of exclusion, rather than the positive impact of inclusion. They explored the impact, on a healthy population, of being part of an included or excluded group, in a virtual computer environment. The included group reported decreased depression, lower heart rate and increased social self-esteem, compared to the excluded group. The researchers concluded that enhancing feelings of belonging improves physiological and psychological outcomes. Real world examples include Whatley, Fortune and Williams (2015), who reported that a community gardening project increased social inclusion in people recovering from mental health difficulties, and helped participants feel

confident, valued and accepted. Plumb and Stickley (2017) interviewed ten members of a community choir for mental health service users. Participants reported social and mental health benefits as well as feelings of accomplishment.

Social capital refers to the networks and resources available to individuals. Low social capital is associated with poorer psychological wellbeing, and those with mental health problems generally have lower social capital than the general population (De Silva, McKenzie, Harpham & Huttly, 2005). Nielsen et al. (2015) identified that increased levels of social capital, diminishes the impact of socio-economic inequality on mental health.

Community-based exercise, has the potential to increase social inclusion and social capital, by giving participants opportunities to meet people, build networks and become more active in their community. This may also be beneficial to psychological wellbeing. However, one study (Marlier et al., 2015), found that although sports participation and social capital were associated with better mental health, there was no association between sports participation and improved social capital.

Rationale for review

Research has identified that physical activity can be beneficial to mental health. It has also been demonstrated that social inclusion is associated with better mental health, and that community-based projects can improve psychological wellbeing and social inclusion. It is therefore possible that physical activity in a community setting could enhance the positive impact of these factors. The purpose of this review, therefore, is to establish what current research exists exploring the impact of community-based physical exercise on psychological wellbeing and social factors such as social inclusion, social support or sense of community. The aim of this review, is to establish: “what is known about the impact of community-based physical exercise on psychological wellbeing and social factors?”

Method

Search Strategy

The search for this narrative review was conducted in April 2017. EBSCOhost was utilised to obtain relevant literature from: AMED, MEDLINE, PsycINFO, SPORTDiscus, AgeLine, CIANHL Plus and Psych Articles. Additional searches were conducted on the Cochrane Library and Web of Science. Hand searching of the bibliographies of related reviews, was also conducted. A screening process was used to assess the relevance of papers in a three-stage process, articles were assessed: first by title, then abstract and finally by full text. Articles that met the inclusion/exclusion criteria were included for review. The process for selection of articles is detailed in figure 1. No start date for the papers was set, and there were no limits set based on research methodology.

The following search criteria were applied:

"Sport" or "exercise" or "physical activity"
"Mental health" or "mental illness" or "wellbeing" or "well-being"
"Community"

Inclusion and Exclusion Criteria

The following inclusion and exclusion criteria were applied to the search results.

Inclusion criteria:

- A focus on physical exercise.
- Physical exercise takes place in a community setting.
- Participants are over eighteen.
- In quantitative studies, there must be a measure of mental health or wellbeing and a measure of social inclusion, social relationships, sense of community or a related measure.

- In qualitative studies, there must be a focus on the social and mental health impact of community-based exercise.
- Mental health must be the primary or a significant element of the research.
- Article is available in English.

Exclusion criteria:

- Mental health is measured but is secondary to another, more significant, variable (eg. an exercise programme designed to help symptoms of arthritis).

Physical exercise was defined as any activity in which persistent physical effort was required. A community setting was defined as a setting where a group of people met to participate in activity together.

The search terms were inputted and duplicates removed. The titles of the results of these searches were examined and irrelevant articles were removed. The abstracts of the remaining articles were read for further detail, and studies that did not meet the inclusion criteria were discounted. Remaining studies were read as full text articles. Any articles that met the inclusion criteria were included in the review.

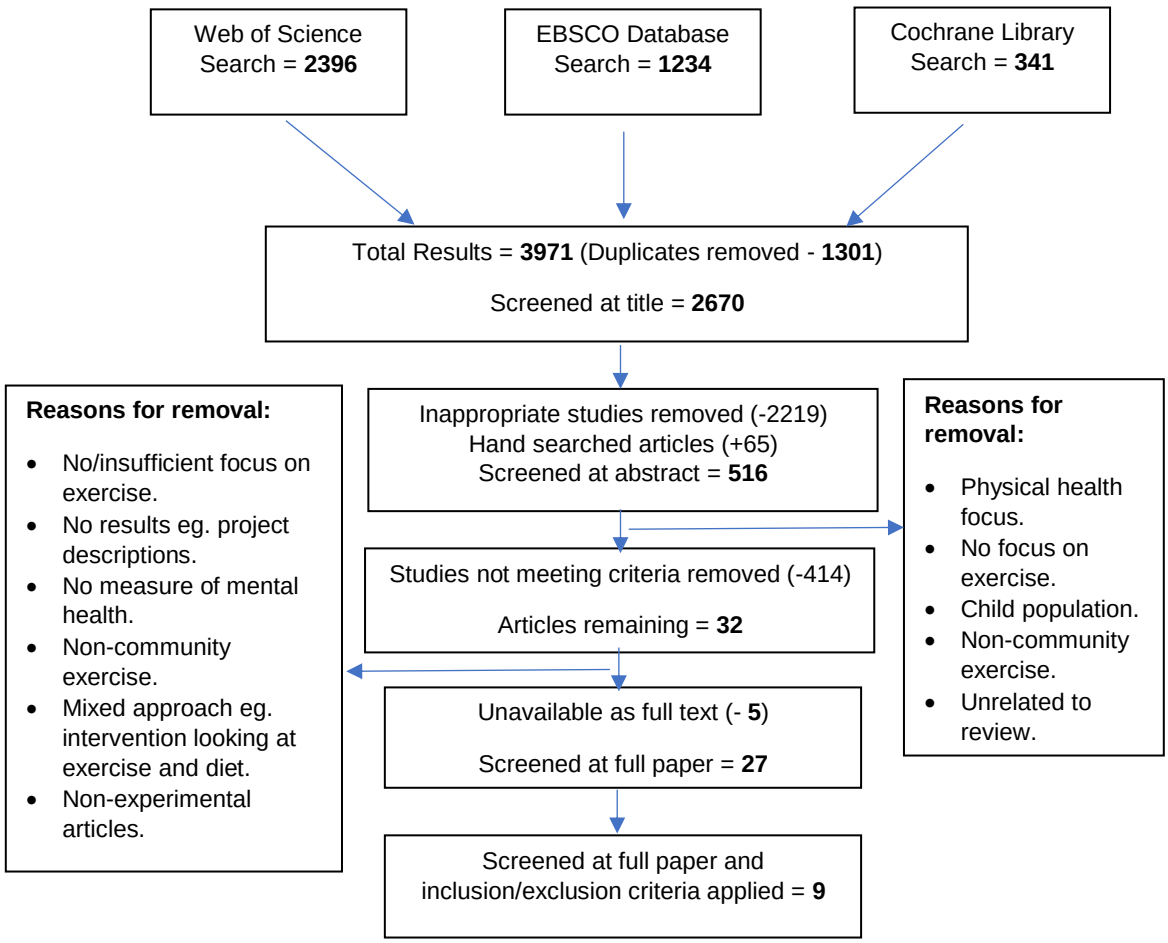

Figure 1: Flow diagram illustrating selection procedure for papers.

Search Results

Six articles selected after screening at abstract were unavailable as full text. Four were available as abstracts only and two were symposium presentations. Efforts were made to obtain copies of these studies, but the researcher was only able to gain access to one of them.

Nine studies were selected for review. A descriptive overview of the studies is presented in table 1, which includes details of sampling, data collection, analysis and findings. The studies are then discussed in more detail and findings are synthesised.

Critical appraisal process

The appraisal of studies using established critical appraisal checklists is important to ensure that studies, with differing methodologies are evaluated in a consistent and structured way (Aveyard, 2010). Study quality was appraised using the Crowe Critical Appraisal Tool (CCAT) (Crowe, 2013) (Appendix C). The CCAT was selected due to its good construct validity and inter-rater reliability, when comparing studies with different methodologies (Crowe & Sheppard, 2011; Crowe, Sheppard & Campbell, 2011). Using one checklist for all studies meant that study quality could be more easily compared. The CCAT checklist rates studies across eight domains, each of which are rated out of five, resulting in a final credibility score out of 40. The tool contains checklists of criteria to take into consideration for each domain. Only the criteria relevant to the paper are taken into consideration when scoring each domain out of 5. The domain scores take into account both how many of the criteria were met, and the overall strength of the paper in the domain. For example, a study which met most of the criteria for the domain, but made a serious omission may be given a low score. Papers were rated either good, average or poor quality. This rating was based on not only overall score, but scores on the individual domains. For example, a paper that scored highly on several domains but poorly on crucial

domains, such as ethical matters, may still be rated poor. Therefore, there are no thresholds for what is considered a good, average or poor paper.

An independent researcher conducted consistency checks, with a sample of the studies, and an 87% rate of consistency was found across the eight domains.

Overview of studies

Nine papers met the inclusion criteria for this review. Five were quantitative studies, three were qualitative, and one used a mixed methodology approach. Studies were classified according to the national institute for health and care excellence guidelines (NICE, 2012). Of the quantitative studies two were observational, and three were experimental. Two studies were randomised control trials (RCT's) (McGale, McArdle & Gaffney, 2011; Cho, 2008). Hoffman et al. (2015) was an experimental interrupted time series study, as they assigned participants to an intervention, but there was no control group for comparison. Stevinson and Hickson (2014) and Malcolm, Evans-Lacko, Little, Henderson, and Thornicroft (2013) were observational studies as they did not assign participants to a condition. Three qualitative studies were included in the review. Mason and Holt (2012) used a thematic analysis approach, and Thorpe, Anders and Rowley (2014) used a grounded theory approach. O'Brien (2015) utilised an interpretivist approach, incorporating elements of thematic analysis and content analysis. Stickley, Paul, Crosbie, Watson and Souter (2015) utilised qualitative and quantitative methods, using thematic analysis to analyse qualitative data and presenting quantitative findings as descriptive statistics.

McGale et al. (2011) presented a football project integrated with elements of cognitive behavior therapy (CBT). Although an integrated approach, the study was deemed suitable for review as the CBT elements complimented the community physical activity and were integrated into the entire sessions. Although Malcolm et al. (2013) did not include a measure of social factors it was deemed appropriate for inclusion, as the researchers identified increasing social inclusion as an aim of the programme. They measured perceived stigma and

willingness to disclose mental health difficultuies, which they argued were part of this.

Table 1: Summary of quantitative papers

Authors, Year, Location	**Sample and Setting**	**Aims**	**Methodology**	**Findings**
Cho (2008), Hong Kong	Community dwelling older adults (over 60) who were not regularly exercising and met the diagnostic criteria for depression (n=14).	To investigate the impact of a group-based Tai Chi program on mood in elderly people with depression, and to establish the role that social support plays in the effect of exercise on depression.	Quantitative, experimental, RCT. Participants were allocated to a three-month group tai chi program or waiting list control group. Measures were taken of depression (CES-D) and social networks (LSNS) at baseline and at the end of three months. Regression analysis was conducted to establish the impact of social networks, age, gender and educational history on changes to depression scores.	Participants in the tai chi group had significant improvements in depression (effect size 0.82) including all sub-domains of the measure (somatic symptoms, negative effect, interpersonal symptoms and wellbeing). These changes remained significant when controlled for age (effect size 0.72), gender (effect size 0.77) and educational history (effect size 0.79), but not when social networks were accounted for (effect size 0.4). The researchers conclude that the social nature of the

				programme, may have contributed to its benefits on depression.
Hoffman et al. (2015), USA	Attendees of a community-based local service organisation (n=5), offering support to people with severe and persistent mental health difficulties.	To evaluate the physical and mental health impact of a 10-week exercise programme for people with severe mental health difficulties.	Quantitative, experimental, interrupted time series. Participants completed a researcher designed questionnaire at baseline and at the end of the intervention to assess physical and mental health, mood, motivation and social support. Participants also completed a researcher designed feedback questionnaire.	There were no significant changes in mood, social support, mobility, physical or mental health. Some qualitative feedback from participants suggested that there were some benefits to participation, such as feeling healthier and feeling encouraged and supported by staff and peers. Impact on motivation is not reported.
Malcolm et al. (2013), UK	Participants of a national programme providing community-based	To establish the impact of community-based exercise on: wellbeing, participation in physical activity, readiness to disclose	Quantitative, observational, interrupted time series. Participants completed questionnaires at baseline and after three	Engagement in physical activity and psychological wellbeing improved following engagement in the project. A moderate effect size is

	physical exercise to people with mental health difficulties (baseline n=2663, follow-up n=531).	mental health problems and stigma and discrimination.	months' participation in the project. Various exercise groups and exercise types were included. Measures were taken of mental wellbeing (WEMWS) and researcher designed Likert scale questionnaires assessed stigma, and wiliness to disclose mental health problems.	reported, but exact effect size is not given. There was no perceived reduction in stigma, but participants felt more willing to disclose mental health problems to family and friends.
McGale et al. (2011), Ireland	Sedentary men, without drug or alcohol abuse or physical health problems, who were not prescribed anti-depressants, were recruited through local newspapers (n=84).	To investigate the impact of a community based exercise/CBT intervention on depression and social relationships, compared to an individual activity intervention and a control group.	Quantitative, Experimental, RCT. Participants were allocated to individual exercise, group exercise and control conditions. Participants completed questionnaires at baseline, week 5, week 10 and 8 weeks' post intervention. Mood (BDI-II) and social	Individual exercise lead to improvement in depression (effect size -0.81 at week 10, and -1.58 at follow up) as did group exercise (effect size -1.58 at week 10, and -1.42 at follow up). However, there was no significant difference between conditions. The individual exercise condition improved perceived social

			relationships (SPS) were measured. Three open ended questions were also asked about psychological health and exercise.	support (effect size 1.11 at follow up), although this was not significantly different from the group exercise condition. Feedback suggested that group exercise participants were more positive about exercise and their lives and that social interaction was a benefit of exercise.
Stevinson and Hickson (2014), UK	Participants of parkrun, a free, weekly, timed, 5-kilometre run (n=7308).	To evaluate the characteristics of parkrun participants with regards to age, gender, health status, performance, attendance and running experience, and to assess the impact of parkrun on physical and psychological wellbeing.	Quantitative, observational, mixed methodology. Participants completed questionnaires related to their participation in parkrun. Data was collected about attendance and performance from the parkrun database. Researcher designed	Participants reported a perceived improvement in fitness, mental wellbeing, sense of community and confidence for running. Improvements were associated with more regular attendance. Non-runners were significantly more likely to report improvements in mental wellbeing than regular runners.

			subjective measures were taken of: fitness, health problems, weight control, mental wellbeing, confidence for running and sense of community.	

Table 2: Summary of qualitative and mixed methodology papers.

Authors, Year, Location	**Sample and Setting**	**Aims**	**Methodology**	**Findings**
Mason and Holt (2012), UK	Men with recurrent psychosis or depression, who attended the "coping through football" scheme (n=12), mental health service staff (n=5) and coaches at the project (n=2).	To explore participants experiences of the project, and to understand the project's impact on mental health, physical health, quality of life and social and community relationships.	Qualitative, thematic analysis (with elements of grounded theory). Participants were interviewed, and transcripts were analysed to identify themes. The exact nature of the analysis, is not described.	Six themes were established: 1) Identifying with past self, football helped people to connect to themselves and a "pre-illness identity." 2) Service with a difference, the programme offered a preferred alternative to traditional psychiatric services. 3) Opening up the social world, the programme reduced isolation and increased social interactions. 4) Psychological safety, participants felt safe and supported within the environment of the programme. 5) Feeling good, participants felt improvements

				psychologically and physically. 6) Empowerment, through achieving participants felt more confident and self-esteem was improved.
O'Brien (2015), USA	Long term attendees (five-year plus) of a community dance project (n=8) aged between 71 and 81.	To explore the experiences of participants in a community dance programme. To establish: how the programme benefitted mental health, the role of community in the impact of the programme and the effect that these factors had on adherence.	Qualitative, interpretivist. Eight participants took part in semi-structured interviews, and completed a questionnaire. An adult child of each participant also completed a questionnaire. Data was analysed using thematic and content analysis, and themes were identified.	Six themes were established: 1) Value of positive, enjoyable exercise practices, participants felt the classes welcoming and uplifting and enjoyable. 2) Exercise history and present-day exercise, participants discussed their increased opportunities to exercise in comparison to earlier in their lives. 3) Character strengths of participants, participants felt active, fit, social, balanced, flexible, strong and generous. 4) Self-determination, participant described feeling

				independent and capable, and that the class was part of that. 5) Social capital development, participants felt that the class helped them develop strong social ties, and reciprocal relationships. 6) FitDance program/features, participants felt that the programme had helped them to stay motivated and adhere to exercise.
Stickley et al. (2015), UK	Attendees of a rural community dance programme. Participants completed questionnaires (n=330) and took part in focus groups and interviews (n=20).	To evaluate the impact of a rural community dance programme on attendees' physical and psychological health and wellbeing.	Mixed methodology. Participants completed a researcher designed quantitative questionnaire subjectively rating the impact of the classes on physical, social and emotional factors. Three focus groups and seven one to one interviews were	Quantitative data suggested that participants felt the programme positively impacted upon their physical and mental health. Participants enjoyed the classes and felt that they had made friends. Nine themes were identified: 1) Dancing for reacquaintance with past experiences, participants felt

			conducted and analysed using thematic analysis.	that the programme helped them reconnect to something they loved. 2) Dancing for fitness, participants felt more flexible and fitter through participation. 3) Dancing for physical well-being, participants found the programme beneficial physically and socially. 4) Dance and psychological well-being, participants felt that the programme improved cognitive function, and gave a sense of achievement, and increased confidence. 5) Dance as a distraction and stress reliever, participants felt less stressed through participation. 6) Dance, space to be creative, participants appreciated opportunities to

				express themselves creatively. 7) The social aspects of community dance, participants felt that they benefitted from the opportunity to develop social connections and felt part of a community. 8) Placeing dance participation at the centre of the community, participants felt that the programme helped bring together a remote rural community. 9) The dance instructors, participants appreciated the approach of the instructors and the relationships they were able to develop with them.
Thorpe et al. (2014), Australia	Aboriginal men who were current or past players of	To explore the impact of the club on the social, emotional and physical	Qualitative, grounded theory. Four participants took part in semi-	Five categories of data were identified with twelve concepts and forty-two sub-concepts.

	an Australian rules football team (n=14).	wellbeing of young aboriginal men, and to identify barriers and motivations for participation in community sport.	structured interviews and ten in three focus groups. Transcripts were analysed using a grounded theory approach.	Categories were: 1) Community connection, participants felt that the club offered somewhere to gather and connect with members of their community. 2) Cultural values and identity, participants felt that playing promoted cultural bonding, and helped people feel connected to their culture. 3) Health, participants felt that the club was beneficial to their physical health, and helped them maintain participation in physical exercise. 4) Responsibilities, participants felt that the club represented a set of values, and they were expected to follow these. 5) Racism and discrimination, participants identified regular

				experiences of racism, and the barriers that this produces.

Aims, participants and settings

The studies' aims vary, but all explore the impact of community-based physical activity on mental health and social factors. They all explain their aims appropriately, and seven give appropriate rationale for their study. Cho (2008) gives a detailed rationale for exploring physical exercise and Tai Chi specifically, but does not sufficiently explain why social networks were examined. O'Brien (2015) identified one aim as "to present eight, active, vibrant, functionally fit, women, ages 71-81, who FitDance, and who are positive role models of motivation, programme adherence and self-determination." This suggests that the researcher was not balanced in their analysis, as portraying participants positively was an aim of the project.

A range of participants were recruited for the studies and the number of participants varied ranging from 5 to 7308. Four studies sampled participants from clinical populations (Cho, 2008; Malcolm et al., 2013; Hoffman et al., 2015; Mason & Holt, 2012). Cho (2008) recruited older people with depression. Hoffman et al. (2015) and Mason and Holt (2012) both recruited participants with severe mental health difficulties. Malcolm et al. (2013) recruited participants with mental health problems, but did not require a formal diagnosis. The other five studies recruited participants from a non-clinical population (Stevinson & Hickson, 2014; Thorpe et al., 2014; Stickley et al., 2015, O'Brien, 2015; McGale et al., 2011).

The studies examined a range of different exercise interventions, but all activities took place in a community setting. Three studies explored team sports (McGale et al., 2011; Mason & Holt, 2012; Thorpe et al., 2014). Two studies explored dance classes (O'Brien, 2015; Stickley et al., 2015). Hoffman et al. (2015) examined an aerobic exercise programme. Stevinson and Hickson (2014) recruited participants of parkrun, a free weekly five-kilometer running event. Cho (2008) examined a Tai Chi programme. Finally, Malcolm et al. (2013) evaluated a national community-based project for people with mental health difficulties, the

types of physical activity varied, but all activities were communal. Stevinson and Hickson (2014), O'Brien (2015), Malcolm et al. (2013), Stickley et al. (2015) and Mason and Holt (2012) studied existing programmes, whilst Thorpe et al. (2014) recruited members of a sports team. Cho (2008), McGale et al. (2011) and Hoffman et al. (2015) created interventions for the purpose of the research.

Methodological Quality

The quality of the studies vary, although all studies have methodological flaws. The quantitative studies are of mixed quality ranging from good (Stevinson & Hickson, 2014; McGale et al., 2011) to poor (Hoffman et al., 2015). Cho (2008) and Malcolm et al. (2013) were of average quality. The qualitative studies are generally higher quality, with two of the studies (Mason & Holt, 2012; Thorpe et al., 2014) and the mixed methodology study (Stickley, et al. 2015) being good quality. The final qualitative study (O'Brien, 2015) is of poor quality.

Table 3: Critical appraisal scores for reviewed studies using CCAT (Crowe, 2013).

	Cho (2008)	Hoffman et al. (2015)	Malcolm et al. (2013)	McGale et al. (2010)	Stevinson and Hickson (2013)
Preliminaries	4	3	4	5	4
Introduction	3	5	5	5	5
Design	3	1	2	3	3
Sampling	2	2	3	3	4
Data collection	2	1	2	3	4
Ethical matters	4	2	2	5	5
Results	3	3	2	4	5
Discussion	3	2	5	5	5
Total (/40)	24	19	25	33	35
Rating	Average	Poor	Average	Good	Good

	Mason and Holt (2012)	O'Brien (2015)	Stickley et al. (2015)	Thorpe et al. (2014)
Preliminaries	4	4	4	5
Introduction	4	3	4	5
Design	3	3	4	4
Sampling	2	3	3	3
Data collection	3	2	3	4
Ethical matters	5	3	4	4
Results	4	2	3	5
Discussion	4	2	3	5
Total (/40)	29	22	28	35
Rating	Good	Poor	Good	Good

Quantitative studies

The design of Stevinson and Hickson's (2014) project was suitable for the study's aim of establishing participant's demographics and engagement, although the secondary aims of establishing impact on health and social factors are explored in a limited way. This means that although the study is of good quality it did not address the question asked of this review rigorously, and more detailed consideration of these findings is not possible. A large sample of participants was recruited (n=7308), although people from ethnic minority groups and those of low-socio economic status were underrepresented, which may have impacted the findings, and reduces generalisability. Recruitment was conducted through the parkrun newsletter, which may have introduced bias as enthusiastic parkrun participants were more likely to have seen the advertisement. The impact of parkrun on: fitness, health problems, weight control, mental wellbeing, confidence for running and sense of community was subjectively rated by participants using five-point Likert scale questions, and so were not measured with a validated measure. The researchers provide descriptive statistics of the subjective measures. This limits the interpretability of the studies, but allows a general overview of participants feelings about parkrun.

McGale et al. (2011) is a good quality study, with some methodological flaws. The process of randomisation is not adequately explained and blinding is not

sufficiently addressed. Although complete blinding is not possible, some elements of the studies (such as allocation to conditions) could have been. Participants were allocated to an integrated CBT and social exercise project, Back of the Net (BTN) (n=29), individual exercise (IE) (n=27) and a control group (n=28). All three conditions were underpowered as researchers calculated that 30 participants were required in each group for the study to be sufficiently powered. The number of participants fell further at follow-up, but intention to treat analysis was conducted. One methodological problem was that participants in the IE condition had one to one time with a researcher (to monitor heart rate), this interaction was a confounding variable, which may have impacted upon the findings especially in relation to social support. Depression and social support were measured using validated measures, the Beck Depression Inventory (Second Edition) and the Social Provisions Scale. Participants completed measures at baseline, week five, week ten and eight-week follow-up. It was the only study reviewed to conduct a follow-up, which is a strength of this study as the longer-term effects of the intervention were measured. It was the only study to compare community-based and individual exercise.

Malcolm et al. (2013) examined community-based exercise, although the nature of the activities varied greatly (eg. gardening, boxing and Zumba). The researchers discuss the benefits of the diversity of the activities, but do not discuss the limitations of this. As the activities are diverse, it is difficult to generalise the findings and establish whether the impact of different activities varied. Participants completed questionnaires at enrollment and at three months. Only participants who took part regularly completed the questionnaires at follow-up. This may have had a significant impact on the findings as those who completed the questionnaires were likely to be those who benefitted most from the project, this may have been especially significant due to the project's high drop-out rate. The participants' who dropped out were not followed up and so a useful source of information is missing. Mental wellbeing was measured

using the Warwick-Edinburgh Mental Wellbeing Scale (WEMWS), which is validated for a non-clinical population, but not for a clinical population, which this study examined. Other outcomes were assessed using a researcher developed Likert scale questionnaire, so these measures were not validated. Some project sites were understaffed, so it is conceivable that participants at projects with better staffing participated at a disproportionate rate. This could have led to unknown confounding variables. Staff at some sites, for example may have been able to spend more time facilitating activities, or supporting participants.

Hoffman et al. (2015) is a low-quality study. The study primarily examined the projects feasibility, but the introduction of a control condition would have better demonstrated beneficence of the project. Participants with severe mental health difficulties were recruited, although how they were selected for inclusion is unclear. The CEO of the organisation proposed the project and was on the research team. This presents a conflict of interests as it is in the researchers' interests to find a beneficial impact of the project. Only five participants participated regularly (defined as those who completed half of the programme or more), and so the study is underpowered. Only these participants were included in analysis, and participants who dropped out were not accounted for. This may have confounded the results as participants who benefitted were more likely to complete the programme. However, all participants including those who did not attend regularly, were invited to complete a feedback measure. The dropout rate for men was disproportionately high (85% compared to 59% for women), although this is remarked upon there is no discussion or consideration of this. Data was collected using a researcher designed questionnaire examining: mental and physical health, mood, perceived social support and motivation. As these measures were not validated the validity and reliability of the findings are unclear. Questionnaires were administered at baseline and after ten weeks, and no follow-up measures were taken. Researchers administered questionnaires in the presence of physical activity leaders. This decreases the validity of the responses, as participants were perhaps more likely to give positive responses

in the presence of activity leaders. The feedback questions were perhaps leading to more positive responses. For example, one question was “what did you like?” but there is no question asking what participants did not like. The researchers also introduced a competitive element to the programme and gave out prizes for regular attendance and improvements. This may have impacted on the results in an unpredictable way. For example, although it may have encouraged more regular attendance, it may have impeded the social aspect of the group.

Cho (2008) is a medium quality study. Fourteen participants were allocated to a community tai chi group (n=7) or a waiting list control group (n=7). It is not clear how participants were allocated to these groups. Participants were recruited from a psychogeriatric outpatient clinic, although it is unclear how recruitment was conducted. The sample size for the study is small, meaning that the study is underpowered. Participants completed measures at the start and end of the three-month programme and did not complete any follow-up, which would have been a useful addition. The Centre for Epidemiological Studies Depression Scale (CED-D) was used to measure depression, and the Lubben Social Network Scale (LSNS) measured social networks, both of which are appropriately validated measures. Measures were administered by a researcher, introducing a risk of bias, although the researcher administering the questionnaire was blinded to group allocation to minimize this. Regression was conducted on the data to ascertain the impact of age, gender, educational history and social networks on changes to depression scores, it is not adequately explained why these specific factors were chosen to examine.

Qualitative and Mixed Methodology Studies

Mason and Holt (2012) is a good quality study, with some methodological flaws. The researchers used thematic analysis, but incorporated features of grounded theory. As it is unclear exactly what process of analysis was used, the rigour of the analysis is uncertain. The researchers recruited twelve attendees of a

community football group, in addition to five coaches and referrers to the project, although it is not clear how exactly participants were recruited. The rationale for including staff members was not adequately explained and the contributions of the staff and service users are not separated so it is not clear how opinions were similar or different, and this would have been a useful addition to the research.

Thorpe et al. (2014) is a good quality study, which used a grounded theory approach to explore participants' experiences. The researchers identify their method of analysis and follow an established protocol for grounded theory, which enhances the rigour of the research. The researchers describe involving the community as much as possible in the design of the project, such as allowing participants to take part in focus groups rather than interviews. The researchers identify unavoidable bias, as the lead researcher is a current member of the team being investigated, although the researcher discusses benefits of this, such as their ability to collect a rich level of data. However, the researcher does not adequately describe how their bias may have impacted upon the findings. In grounded theory recruitment continues until saturation is reached (meaning that no additional information is being given by participants) but the researcher states that all of those who volunteered were interviewed suggesting that saturation was not reached, or the study continued after saturation. All participants were aboriginal men, but further demographic information is not presented. The limitations of the sample are addressed by the researchers, who identify that aboriginal players from other teams, supporters or female members of the club's netball team could have added extra insight.

Stickley et al. (2015) is a good quality study, with some limitations. This study's mixed methodology approach allowed the researchers to gather broad statistical information about participant's attitudes, whilst allowing and in-depth contribution from participants through focus groups and interviews. Demographics are presented of those who completed the questionnaire, but not who took part in the focus groups and interviews, therefore it is unclear how representative the group was of all participants. It is also unclear how participants were recruited

and allocated to the focus groups and interviews. The questionnaires contained ten attitudinal statements. Participants were asked to rate how much they agreed with the statements from 0-10. Questions focused on elements of physical health, wellbeing and impact on social relationships. The statements were potentially leading as they were all framed positively. For example, “I have enjoyed the experience,” “My general sense of wellbeing has improved,” and “I have enjoyed the social aspects of the group.” The questionnaires were not validated, although the researchers conducted their own validity checks on their questionnaire. The quantitative data is presented as descriptive statistics (presented as percentages), and no statistical analysis is performed, as measures were taken at one time-point, with no comparison group. The focus group and interview data was analysed using an established protocol for thematic analysis. Using an established protocol increases the rigour of the research, and ensures that the analysis follows a clear process.

O’Brien (2015) is a low quality study, with several methodological flaws. The researchers intentionally frame interview questions positively drawing parallels between the project and the philosophy of positive psychology. However, this limits the validity of the findings as participants were socialised to speak more positively. Some of the questions include: “what is it about the class that makes you feel connected to your peers?” and “can you describe a, like, favorite moment or a high point in class that you’ve experienced while you’ve taken these classes?” Although some of the questions are more general (“Tell me about your dance-exercise class?”), and the questions in the questionnaires were more general and less positively framed. The main researcher is the founder and owner of the exercise class, which presents a conflict of interests. The researcher makes efforts to reduce the impact of this such as not conducting interviews themselves and acknowledging the potential for bias. The researcher describes sending interview transcripts to participants for accuracy checking, although does not describe sending themes for checking. As the transcripts were transcribed verbatim it is not clear how participants identifying inaccuracies

would have impacted upon the transcriptions. The researcher describes the project as being a qualitative study using an interpretivist model, incorporating elements of thematic analysis and content analysis. The exact nature of how analysis was conducted is unclear so the rigour of the analysis is questionable. The participants were highly homogenous with all participants being white women, aged between 71 and 81. All participants were college educated and married or widowed with children, although this may be representative of the membership of the programme. All participants had been members of FitDance for five years or more, although it is unclear why this criterion was set, and means that participants were more likely to be enthusiastic about the programme. The consent of the children to participate is not discussed, nor how it would have been addressed if the participants did not have children who were willing to participate. The researcher states that over forty members offered to participate, and it is unclear why only eight were recruited. Although small sample sizes are normal in qualitative studies it is common for a thematic analysis to have a greater sample size than eight (Braun & Clarke, 2010).

Findings

The studies all report finding that the interventions were beneficial to mental health. There are mixed findings regarding the social impact of the studies. The qualitative evidence universally identifies participants feeling that participation had been beneficial both socially and psychologically, however the findings of the quantitative studies are less clear. Discussion of findings regarding the social and psychological impact of the studies is presented in more detail.

Most of the studies present findings consistent with the strength of the evidence, and consider limitations of their methodology. For example, Cho (2008) acknowledges that the small sample size limits the study's transferability. Two studies, however, present conclusions which should be viewed with some caution (Hoffman et al., 2015; O'Brien, 2015). Hoffman et al. (2015) suggest that their project was beneficial despite not finding any significant benefits, highlighting positive participant feedback. This feedback, however, presents a mixed view with positive and negative comments. For example, one quote, "I feel improvement in the right direction," is highlighted as evidence that the project was beneficial. However, although negative comments such as "I didn't like the first aerobic session" and "the exercises were too hard" are presented in a table of feedback quotes, they are not included in the discussion of the feedback. This suggests that responses were selected to portray the intervention favorably. The findings of O'Brien (2015) must also be viewed with caution, as the themes identified are closely related to the aims of the project, and the method of analysis is not clearly defined. For example, "value of positive, enjoyable exercise practices" is both a theme and a core concept of the dance programme additionally a research question is posed regarding self-determinism, which is also identified as a theme.

Impact on psychological wellbeing

Of the five quantitative studies reviewed four demonstrated benefits to psychological wellbeing. Hoffman et al. (2015) found that although there were improvements in mental health no significant change was identified.

The quantitative evidence that community-based exercise is beneficial to mental health is limited, due to both the low number of studies reviewed and the poor quality of the evidence. One consistent issue was underpowered studies. Hoffman et al. (2015) and Cho (2008) both had very small samples (5 and 14). McGale et al. (2011) was also underpowered. Stevinson and Hickson (2014) and Malcolm et al. (2013) both had a large number of participants (7308 and 531), although Malcolm et al. (2013) experienced a high dropout rate.

Of the three studies examining clinical populations two demonstrated evidence that physical exercise benefitted mental health (Malcolm et al., 2013; Cho, 2008). The third study (Hoffman et al., 2015) found no significant benefit. There is insufficient evidence to identify whether community-based exercise has a different impact on those with or without mental health difficulties, although the two quantitative studies examining non-clinical populations both demonstrated mental health benefits (Stevinson & Hickson, 2014; McGale et al., 2011). Two of the studies specifically examined impact on depression (McGale et al., 2011; Cho, 2008) and both found improvements. This suggests that community-based physical exercise may improve mood, although further research is needed before conclusions can be drawn. McGale et al. (2011) was the only study comparing individual exercise to community-based exercise, and found no significant difference between the conditions.

The two studies that provided descriptive statistics demonstrate that participants subjectively felt that the programmes were beneficial. Stevinson and Hickson (2014) reported that participants perceived improvements in mental wellbeing (75.7% of regular runners, 86.7% of non-regular runners) and increased

confidence for running (63.7% of regular runners, 86% of non-regular runners). Improvements were associated with more regular attendance, but it would perhaps be expected that those benefitting would attend more regularly. Although a good quality study, impact on mental health was measured in a limited way, and so does not provide strong evidence regarding the impact on psychological wellbeing. Stickley et al. (2015) reported that 75.5% of participants felt that their wellbeing had improved, however this question refers to wellbeing generally rather than psychological wellbeing. For both studies, subjective benefits were measured at one time point so no statistical analysis was performed, therefore it is not clear if the findings indicate significant change.

The qualitative evidence demonstrates stronger support for the mental health benefits of community-based exercise. All studies established themes or concepts related to benefits to mental health, and none of the studies identified detrimental impacts to mental health. Most commonly reported within the findings was a sense that participants felt that their mood had improved and their confidence had increased, as well as a general sense that the activities improved their mental health. Mason and Holt (2012) identified "Feeling good" and "empowerment" as themes. "Feeling good" referred to participants feeling that they had made "psychological gains," and that both mood and motivation had improved. "Empowerment" referred to improved confidence and self-esteem. Participants reported experiencing these benefits both on and off the football pitch. Thorpe et al. (2014) reported similar findings. Within the "health" concept the researchers reported that participants felt their emotional wellbeing was improved and reported increases in confidence. Participants also regarded football as a stress reliever. Stickley et al. (2015) also reported participants stating that exercise was a stress reliever. They reported that the classes gave participants a sense of achievement and that generally they felt the classes "helped psychologically." These improvements are encompassed in the themes "Dancing for psychological wellbeing" and "Dance as a distraction and stress reliever." O'Brien (2015) reported similar benefits of the FitDance classes, with

participants feeling that dance was good for their mental health, and that it improved mood and confidence.

There is a consensus throughout the research that physical exercise in a community setting can have a positive impact on psychological wellbeing. However, the evidence for this is not strong. The quantitative evidence is weak, with two studies identifying significant effects being underpowered. Other evidence measured impact on mental health in a limited way. Although the qualitative evidence points towards a strong feeling among participants that community-based exercise is beneficial to mental health, conclusions cannot be made about the extent of this. No studies were identified in which exercise had a detrimental impact on psychological wellbeing. The most consistent mental health benefit of the programmes was improvements in mood, which was reported by four studies.

Impact on social factors

There is limited quantitative evidence that community-based physical activity impacted upon social factors. Although the qualitative evidence suggests that the social aspect of the projects was beneficial.

McGale et al. (2011) found that participants' sense of social support did not increase in the group activity. However, social support did improve in the individual exercise group (potentially due to increased interaction with researchers). Hoffman et al. (2015) also found that social support was not significantly improved by participation in the project. Malcolm et al. (2013), reports mixed findings, as perceived stigma did not decrease with participation, and while willingness to disclose mental health status to friends and family increased, willingness to disclose to work colleagues did not.

There was some evidence, however, that the social aspect of community-based exercise contributed to improvements in mental health. Cho (2008) concluded that social networks were a factor in the beneficence of physical exercise on depression, although this evidence comes from one study only, with a small

sample size, so must be viewed cautiously. Stickley et al. (2015) reported that 75.2% of participants had made friends and 89% reported enjoying the social aspect of the groups. Stevinson and Hickson (2014) found that sense of community was increased by participation in parkrun (87% of regular runners, 85.4% of non-regular runners).

The qualitative evidence suggests that the projects did have a positive social impact, and that this was a significant factor in the benefits of the programmes. All studies had themes or concepts directly relating to social elements. Three of the studies reported that the projects increased feelings of trust (Mason & Holt, 2012; Thorpe et al., 2014; O'Brien, 2015). Mason and Holt (2012) identified the theme "opening up the social world" reporting that participants felt that the project reduced isolation, and that they developed friendships. They also noted that social relationships developed in the group often continued outside of the project. Participants also reported feelings of increased trust and safety. Thorpe et al. (2014) identified "community connection" as a concept, stating that participants felt that their connection with their community had improved and that the social aspect of the team was as important as the physical aspect. Participants developed a sense of belonging and safety within the team. Stickley et al. (2015) identified "social aspects of community dance" as a theme, and stated that participants felt more socially connected, supported by the group and that the group was both relaxed and non-judgmental. O'Brien (2015) reported similar findings, as the experience of dancing with others enhanced connections, and the classes were satisfying, improved social capital and reduced loneliness. These studies emphasise that participants felt that they benefitted from connecting with others. A positive social environment is a common factor across all studies, and the social aspect of the programmes is highly valued by the participants.

There was no clear evidence that the social element of the projects had a detrimental impact on participants. Hoffman et al. (2015), however, presented some feedback, stating that participants compared themselves negatively to

others, and that this contributed to them disengaging. As the drop-out rate for this project was high, this may have been significant. This effect may have been compounded by the competitive element of the project, which may have impeded the social element. For example, one participant suggested that their reason for non-attendance was “self-conscious of not being able to keep up with exercise group.” Not enough information is available to make conclusions about this, but it is not adequately discussed by the researchers.

Although the quantitative studies do not demonstrate clear evidence that social factors are improved by participating in community-based exercise the subjective evidence endorses the benefits of exercising in community environments. Participants appear to feel strongly that there is a benefit of community-based exercise. It must be acknowledged that these findings come from a small sample of studies, and so cannot be considered conclusive.

Discussion

This narrative literature review critically appraised and synthesised the findings of nine studies examining the impact of community-based physical activity on psychological and social factors. The evidence reviewed reports that community-based physical activity is beneficial to psychological wellbeing. However, upon review the research provides only limited evidence that this is the case. There is some evidence that exercise in a community can be beneficial to social factors, although again this is limited. The studies reviewed suggest that participants feel strongly that community-based exercise is beneficial, both socially and psychologically. However, there is only limited quantitative evidence to support this. This narrative review looked at a small sample of studies which highlights the lack of research specifically in this area, but also means that the implications of this review are limited.

There is some evidence that community-based exercise may be beneficial specifically to mood. The evidence to support this is limited, as only two quantitative studies measured mood, but is consistent with previous research (Ross & Hayes, 1988; Biddle et al., 2000; Craike et al., 2010) and guidance (MHF, 2016). No evidence reviewed suggested that there is any difference in the benefits of community based and individual physical exercise, although that is beyond the scope of this review.

Although the current research evidence is weak the subjective evidence of social and psychological benefits of community-based exercise, and the trends towards improved mental health, in the quantitative evidence, suggest that there is a potential for community-based exercise to be beneficial to mental health and social inclusion.

Implications for future research

The evidence, although limited, suggests that it would be appropriate to examine this area further, as participants subjectively reported that they found the projects beneficial. Community-based exercise, therefore, has potential to be of benefit

to people with and without mental health difficulties, but more research is required.

The quantitative evidence reviewed is limited by some studies being underpowered and having methodological flaws. More robust studies with greater sample sizes would give clearer information about the impact of community-based exercise. A large scale RCT would be beneficial to identify the impact of such projects and to gain information about engagement, and the profiles of people more likely to benefit. Research exploring different locations, intensity of exercise or group sizes would also be beneficial. Qualitative evidence presented in the literature suggests that there is potential for community-based exercise to be beneficial, and further qualitative research would help expand on this. Most of the studies examined in this review focused on short term programmes, and only one study conducted a post-intervention follow-up. Longitudinal studies would give useful information about the long-term impact of community-based physical exercise, as well as the impact of ongoing engagement in such activities.

Strengths and Limitations

This review followed a systematic process for the selection of articles, and examined an area that has not been explored in depth previously. Although there is much research looking at the benefits of exercise on mental health, there is little evidence exploring the social elements of exercise. The omission of non-English language articles, although necessary due to lack of resources, may have meant that relevant articles were omitted. The inclusion of studies from varying different populations such as clinical and non-clinical, older adult and young male populations and a broad range of interventions made the synthesis of the findings more challenging as the participants, interventions and the aims of the studies varied, and limits the transferability of the findings of this review. The number of articles reviewed reduces the reviews generalisability, as the research presented is limited and therefore the findings cannot be considered conclusive.

Clinical Implications

As the evidence for the benefit of community-based physical activity is limited, the clinical implications of this review are also limited. Such projects may be beneficial as all the studies reviewed demonstrated some benefits, and few detrimental effects were identified.

Further research on such projects would be valuable in establishing the potential of community-based exercise to improve individual's mental health. The research suggests that community-based exercise may lead to improvements in confidence, self-esteem and low mood and increased trust. Therefore, it may be appropriate to consider such initiatives for people with difficulties in these areas, although clinical judgment must be employed due to the limited evidence base.

Conclusion

This review looked at a small sample of studies, examining the impact of community-based physical exercise on psychological wellbeing and social factors. The quality of the studies varied. The evidence included in this review suggests that community-based physical exercise can be beneficial to psychological wellbeing. However, this evidence is limited and more research needs to be conducted, to draw conclusions. There is no evidence suggesting that community based physical activity is more, or less beneficial than individual exercise, although there is little research exploring this. The evidence that community-based exercise can improve social factors such as social inclusion, social networks or sense of community is also limited. There is evidence however that participants' in such projects perceive them to be beneficial both socially and psychologically.

More research is required to establish the impact of community-based physical activity on psychological wellbeing and social factors. It would be beneficial for more RCT's to be conducted comparing community-based and individual exercise. It would also be beneficial for more research to be conducted with a

clinical population. Qualitative research would be helpful to establish specific benefits of such initiatives and how they can be optimised and developed.

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Paper 2: Empirical Paper

Not just a run in the park: A qualitative exploration of parkrun and mental health.

Target Journal: International Journal of Mental Health Promotion

Word Count: 7518

Abstract

Parkrun is a volunteer facilitated mass participation running event, taking place in open spaces around the world. Research has identified benefits to mental health of exercise, community activity, volunteering, and outdoor activity, all of which are incorporated into parkrun. This study aims to explore the experiences at parkrun of individuals with current or past mental health difficulties. Twenty participants were interviewed, and transcripts were analysed using thematic analysis. Three themes were identified: “sense of achievement” referring to feelings of accomplishment; “connecting with others” referring to a sense of belonging and community, and “it’s for everyone,” referring to the equitable, welcoming and non-threatening environment of parkrun. Participants universally felt that parkrun had been beneficial to their mental health. The clinical implications and limitations of the study are discussed and suggestions for further research are made.

Introduction

Parkrun is a free, weekly, timed, five-kilometre run, taking place in open spaces across the UK and around the world. Events are organised by volunteers, and runners of all abilities are encouraged to participate. Parkrun began in 2004, as a means of runners measuring their progress regularly, and because parkrun founder Paul Sinton Hewitt believed that people should not have to pay to run a five-kilometre event (Bourne, 2014). As of March 2017, there are 445 events in the UK and a further 485 taking place in thirteen countries around the world. Thirteen runners participated in the first event in 2004 and now parkrun in the UK regularly gets attendances of over 100,000 (M. Graney, personal communication, 31st May 2017).

There are various elements of parkrun that may benefit mental health. The benefits of exercise on mental health, have long been acknowledged, however the opportunities to volunteer, be outside, and participate in a community activity may also be beneficial.

Physical Exercise

The Department of Health (DOH, 2011) suggest that adults should participate in 150 minutes of moderate aerobic activity or 75 minutes of vigorous aerobic activity each week, in addition to two sessions of strength exercises. Physical activity is particularly important to people with mental health difficulties as they are more likely to have a poor diet, smoke, drink too much alcohol or be overweight or obese (Mind, 2015). However, people with mental health difficulties often do not engage in recommended levels of physical activity, and there is an association between lower physical activity levels and an increased prevalence of mental health difficulties (Goodwin, 2003; Harvey, Hotopf, Overland & Mykletun, 2010; Ten Have, de Graaf & Monshouwer, 2011).

A literature review conducted by Zschucke, Gaudlitz and Strohle (2013) concluded that exercise and physical activity can improve the symptoms of various mental health conditions, although controlled studies for specific mental

health difficulties are sparse. The review identified biological and psychological contributors to this change, such as increases in serotonin and endorphins, and social reinforcement, improved coping strategies, and distraction. The Mental Health Foundation (MHF, 2016) reported a relationship between increased exercise and improved mental health, stating that exercise can reduce stress, anxiety, depression and improve mood and self-esteem.

Community activity

People with mental health difficulties are some of the most socially excluded people in the UK, and social exclusion is associated with poorer physical and psychological health (Boardman, 2011). Research has demonstrated that increased social inclusion can improve mental health. Whatley, Fortune and Williams (2015) reported that a community gardening project improved participants' social inclusion and psychological wellbeing, by developing a flexible environment which encouraged learning and enabled social participation. Dolling and Day (2013) described how a community arts project, aimed at increasing social interaction and improving social skills by facilitating creative expression, improved participants' mood and sense of achievement. With regards to exercise specifically, Harvey et al. (2009) reported that social factors play an important role in the benefits of physical activity. These studies demonstrate the potential for community-based social activities to be beneficial in increasing social inclusion and improving mental health.

Holmes (2010) discusses the idea of supporting individuals' mental health by creating nurturing communities, rather than treating individual "problems." Holmes suggests that by creating supportive and encouraging environments, psychological distress can be prevented and minimised. This is achieved partly through empowering individuals and encouraging ownership of their interventions. As parkrun events are organised by runners themselves, this is pertinent.

Parkrun facilitates community involvement and ownership through volunteering. All parkrun events are run by volunteers who are generally members of the local

community. The MHF reports that volunteering can improve mental health, by decreasing loneliness, reducing stress, reducing negative feelings, and increasing happiness (MHF, 2012). The various volunteering opportunities available at parkrun, make the events more inclusive, as people who do not want to run, or are unable to, can participate.

Much of the research demonstrating the benefits of volunteering on mental health, focusses on middle-aged or older adults (Choi & Kim, 2011; Lum & Lightfoot, 2005). One study which examined different age groups (Musick & Wilson; 2003) found that volunteering was associated with lower levels of depression, but only in the over-65's. This suggests volunteering may have a greater impact on the mental health of older adults, but research, especially with younger people, is too limited to draw conclusions.

There is evidence that being outdoors can also be beneficial to mental health. Bragg, Wood and Barton (2013), produced an evidence based report and concluded that individuals who engaged in activity in natural environments had improved mental health, increased social inclusion and healthier lifestyles. Wolsko and Lindberg (2013) found that participants who scored highly on a nature connectedness measure (which refers to the extent to which nature is a part of an individual's identity and everyday life) scored more favourably on psychological well-being measures.

Korpela, Stengard and Jussila (2016) found that incorporating an outdoor walking activity into a group depression programme helped reduce depression and improve mental well-being, with a small sample of participants (n=13). Fruhauf et al. (2016) allocated participants with depression to an indoor physical activity condition, an outdoor physical activity condition and a sedentary control condition. They found that mood improved significantly in the outdoor activity condition, and that participants felt more activated in the outdoor condition compared to the indoor condition. Pasanen, Tyrvainen and Korpela (2014) explored the relationship between perceived health and exercise in: indoor, built outdoor (such as in on streets or cycle lanes) and natural outdoor environments.

The researchers found an association between exercise in natural outdoor environments and improved emotional well-being, concluding that a natural environment enhanced the emotional benefits of exercise. These studies suggest that outdoor physical activity can be beneficial to psychological wellbeing.

Parkrun and mental health

In 2008, the New Economics Foundation (NEF) published the evidence-based report “Five Ways to Wellbeing” (FWTW) (NEF, 2008). The report detailed five ways that people could improve their mental health and wellbeing. These are: connect (improving relationships with family and the community), be active (increasing levels of physical activity), take notice (being mindful and curious about the environment), keep learning (trying something new, taking up old interests and setting challenges) and give (giving to others). Parkrun may provide an effective way of putting these ideas into practice, as it offers opportunities for all five.

Research has identified benefits of parkrun on mental health, although studies exploring this are sparse. Stevinson and Hickson (2014) asked participants (n=7308) to subjectively rate the impact that parkrun had on their fitness, health problems, confidence, sense of community and mental health. Participants reported feeling that participation was beneficial to their fitness, mental health, sense of community and confidence for running. Stevinson, Wiltshire and Hickson (2015) conducted a thematic analysis exploring factors that contributed to continued participation in parkrun. Improvements in wellbeing were reported by participants, facilitated by social support, achievement and the outdoor setting. Two themes were identified: freedom and reciprocity. Freedom referred to the flexibility of parkrun and reciprocity referred to the reciprocal environment of giving and receiving. Both Stevinson and Hickson (2014) and Stevinson et al. (2015) identified that parkrun was successful in engaging non-runners in physical activity.

Rogerson, Brown, Sandercock, Wooler and Barton (2016) recruited parkrun participants to complete measures of self-esteem, stress, mood and nature relatedness, before and after running the event. The study explored the impact of parkrun and the different environments in which the runs took place. The environments were classified as beach, riverside, grassland and heritage (taking place in a heritage park). Although no differences between the environments were established, participation in parkrun led to significant improvements in participants' stress, mood and self-esteem.

There is evidence that participation in parkrun can benefit mental health. This evidence, however, is limited, and studies have not been conducted with a clinical population. No conclusions can be made about the exact nature of the relationship between participation and mental health, or the extent to which parkrun can be beneficial.

This project contains unavoidable bias as the principal researcher is a participant in parkrun, making this an insider research project. Benefits of insider research, include the researcher's first-hand insight into the topics being discussed and that rapport can also be easier to develop as the interviewer has a greater understanding of participants' experiences. However, a disadvantage of insider research is the increased risk of pre-existing ideas impacting on both interviews and analysis (Mercer, 2007), although this is always a risk in qualitative analysis.

The researcher maintained a reflective log, and considered his own expectations, prior to commencing interviews. The opportunity to engage in a community activity was expected to feature significantly, as was the impact of exercise itself, and finally the opportunity to contribute through volunteering. By acknowledging these expectations, the researcher could consider their impact on analysis.

Aims

This study aims to explore the experiences of people with a history of mental health difficulties who participate in parkrun, whether as runners, volunteers or both. The research aims to add knowledge to the limited evidence base around

parkrun and its impact on mental health, and more broadly about supporting mental health through community-based sports participation.

The research question is: What are the experiences of people who have had a history of mental health difficulties when participating in parkrun?

Method

Ethics

The Staffordshire University faculty of health sciences ethics panel and the parkrun research ethics committee both granted ethical approval for this study (Appendices E & F).

Recruitment and Participants

Participants were recruited through an advertisement in parkrun's electronic newsletter, as agreed with parkrun. The advertisement contained details of the study, requirements of participants and inclusion and exclusion criteria (Appendix F). Details were also available on the parkrun research website. The advert specified that individuals over the age of eighteen, who had experienced mental health difficulties, for which they had received support, and who had attended at least ten parkrun's were eligible. Participating at least ten times was considered necessary for participants to have sufficient experience of parkrun, and included participating as a runner, volunteer, or a combination of both. Participants were asked to identify themselves as having experienced mental health difficulties, and no formal diagnosis was required. The requirement to have accessed support was intended to ensure that participants had experienced difficulties that had significantly impacted upon them. Support was defined as any intervention from private, voluntary or statutory services. Participants confirmed that they met eligibility criteria by e-mail and when signing the consent form.

Participants were invited, in the advertisement, to e-mail the researcher for more details. Those that expressed an interest were sent a participant information sheet (Appendix G), via e-mail, and were asked to respond, if they wished to participate. Individuals who provisionally agreed to participate were selected randomly, by a random number generator, to be interviewed. Participants were then asked to sign and return a consent form prior to interview (Appendix G). Participants also confirmed with the interviewer that they had read the information sheet and met the inclusion criteria, prior to the start of the interview.

A target of ten to twenty participants was set for recruitment, based on the guide in Braun and Clarke (2013). Sixty-seven participants responded to the advertisement, and were sent information sheets. Respondents were informed, by e-mail, of the high volume of response, and that it may not be possible for everyone to be interviewed. Forty-three participants responded. Twenty-seven participants were selected randomly for participation. Seven people did not respond and twenty participated. Participants were informed that they could withdraw at any time, until the transcripts had been analysed. A rough time-scale for this was provided before the commencement of interviews.

Of the twenty participants interviewed thirteen were women (65%) and seven were men (35%). This is representative of the gender split of those who agreed to participate (64% women, 36% men). The gender split in those registered at parkrun is 51.4% women and 48.6% men, (M. Graney, personal communication, 9th March 2017), although this information was not available to the researcher when participants were selected for interview.

Participants were aged between 28 and 65 (mean=45.2). This is higher than the mean age of people registered with parkrun (mean=33), although this includes under 18's. All twenty participants had participated in parkrun as a runner, between 10 to 207 times (mean=58.2). Fifteen participants had volunteered between 3 and 52 times (mean=20.3). One participant did not supply demographic information. A summary of the participants in this study is presented in table 1.

Table 1: Summary of participants (names are anonymised).

	Participant	Gender	Age	Times Run	Times Volunteered
1	Claire	F	36	12	0
2	Sally	F	35	81	20
3	Alison	F	46	29	35
4	Harry	M	52	125	52

5	Penny	F	40	19	32
6	Bill	M	63	25	29
7	Rob	M	52	207	34
8	Julie	F	28	10	0
9	Darren	M	49	37	3
10	Richard	M	51	68	16
11	Heather	F	37	28	3
12	Ellen	F	35	55	29
13	Graham	M	32	25	0
14	Kim	F	65	81	19
15	Joe	M	46	39	0
16	Katy	F	46	30	3
17	Theresa	F	49	66	3
18	Karen	F	51	48	20
19	Rachel	F	-	-	-
20	Hannah	F	45	121	88

Interviews

Interviews were conducted via: skype, telephone or face to face, between June and October 2016. Due to the nationwide distribution of the advertisement participants were recruited from around the UK. Therefore, due to the difficulty of travel, most interviews were conducted via skype (n=5) and telephone (n=14). One interview was conducted face to face. As there was a possibility that participants might become distressed due to the content of the interviews, sources of support were included in the information sheet.

Interviews were conducted by the lead researcher using a semi-structured interview schedule. Questions were tailored to reflect the content of participant's responses (Appendix H), and focused on experiences of parkrun and its impact on mental health. Interviews lasted between 31 minutes and 71 minutes, and

were audio recorded. Following the interview participants were debriefed and given additional information about the study (Appendix I).

Analysis

Braun and Clarke's (2006) guidelines for conducting a thematic analysis were followed. Interviews were transcribed, verbatim, by the researcher. Identifiable information was anonymised. Transcribing the interviews allowed the researcher to become more familiar with the content of the interviews. Interviews were listened to again after transcription, to ensure accuracy and to increase the researcher's familiarity with the data.

The transcripts were coded at a semantic level, meaning that coding was completed according to what participants said, rather than examining latent meanings. A computer programme (NVivo 11) was used to assist with coding (Appendix J). The researcher examined and revised these codes. Codes that were similar were merged, others were expanded as appropriate, and codes that were deemed irrelevant or had a small number of instances were discarded. These codes were used to generate themes. Themes were mapped into provisional themes and subthemes and relationships between them were examined (Appendix K). Once established the themes were defined and named.

Thematic analysis was selected as an appropriate methodology as it allowed a rich level of information about participants experiences to be collected and analysed. The flexibility of thematic analysis was considered a strength of this methodology, as was the ability to recruit a greater number of participants (than some other qualitative approaches, such as Interpretive Phenomenological Analysis), which meant that a broader range of experiences could inform the analysis. This was considered important as it is the first study specifically exploring experiences of parkrun with this population. Thematic analysis is an epistemologically flexible method of research. The researcher approached the analysis from a critical realist perspective, considering participants' meaning making of experiences, and the way that context impacts upon these meanings.

Rigour

Thematic analysis is a methodology that has been criticised for lacking rigour as it lacks a consistent procedure (Braun & Clarke, 2006). This study utilised an established protocol to address this. The researcher kept a research journal throughout the process the content of which was considered at all stages of analysis, to allow the researcher to consider how their preconceptions and biases may have impacted on the findings. Credibility checks were conducted with an independent researcher, who had experience of using qualitative approaches. This involved the independent researcher reviewing themes and viewing a sample of the data set to check their credibility. Table 2 presents the theme development process, describing the initial codes, which contributed to the development of the subthemes and themes.

Table 2: Summary of theme development process.

Themes	**Subthemes**	**Codes**
Sense of Achievement	Goals	Physical health motivation to start/continue Goals are flexible Feel healthier Improves mental health
	Accomplishment	Sense of achievement Doing something difficult Always glad I went Achievements outside of parkrun Pride Improves confidence
It's for Everyone	Choice	Choice of location Choice to take part Choice how to use it Choice of volunteering roles Goals are flexible
	Accessible	Inclusive atmosphere Wanting others to join Location accessible Cost inclusive 5k distance inclusive Small commitment
	Familiar	Regularity Familiarity of routine Familiarity of people

		Comfortable Point in week
	Equal	Everyone's equal Everyone is cheered Diversity of people who take part It doesn't matter who you are
Connecting with Others	Supportive Environment	Being appreciated Welcoming Friendly Encouragement and support Shared experience Family Like a church Community
	Socialising	Opportunity to meet people Shared interest helps socialising Reduces isolation Community
	Giving and Receiving	Giving back Reciprocating Genuine investment Being supported Wanting people to benefit the way you did
	Identity and Purpose	Feeling valued Belonging Part of something important Developing a new identity Rediscovering old identity Feeling useful

Findings

All participant's felt that parkrun was beneficial to their mental health. Parkrun helped reduce isolation, depression, anxiety and stress, increased confidence and gave participants space to think.

Three themes were developed: "sense of achievement," "connecting with others" and "it's for everyone." These themes and the relationships between them are detailed in figure 1.

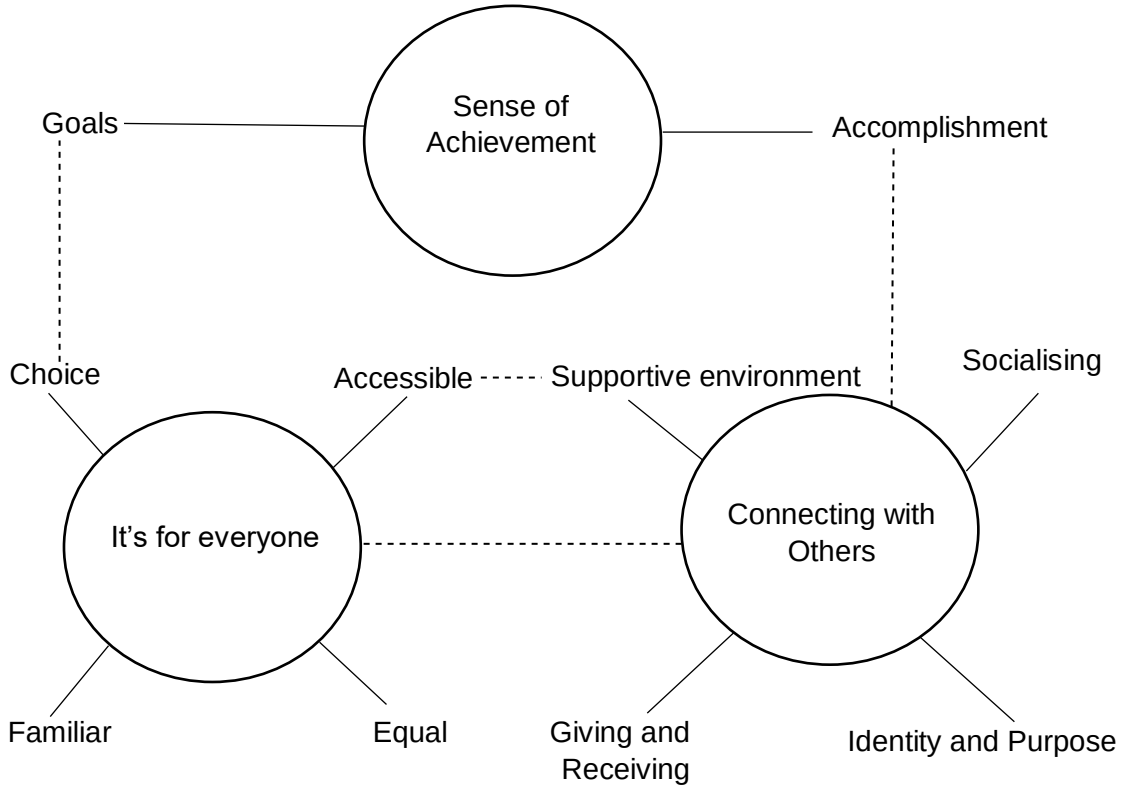

Figure 1: Thematic Map of themes and subthemes. Links between themes and subthemes are identified by dotted lines.

Sense of Achievement

Participants reported a sense of achievement from participating in parkrun, which improved mood and increased confidence. This includes the achievement of participating, achieving specific goals and doing something difficult. This theme contains two sub-themes: goals, and accomplishment.

Goals

Participants reported benefitting from setting and achieving goals. One purpose of setting goals was to maintain focus and motivation.

> *I had a goal that I wanted to do parkrun…usually when I've done things in the past like diets or couch to 5k or any kind of programme I've taken the advice to a certain point and then just gone off and done my own thing, but this is the first time I can ever say in my life that I had an end goal that was very clear: to do parkrun.*
> *Claire (Lines 67-71)*

> *You think, right OK, I need to make sure I'm not too late going to parkrun as it's quite early, so it's there in your head rather than… thinking about other things. [It] gets you into a routine which breaks that cycle of…self-destruction, trying to focus on something that's going to build you up a little bit.*
> *Darren (Lines 96-100)*

When people achieve goals, it lifts their mood, increases confidence, and improves self-esteem.

> *My goal [was to] be able to do it in one go without stopping by Christmas, but I've been doing it for months already, the last couple of months. Reaching that goal made me feel incredible.*
> *Heather (Lines 247-249)*

I'm feeling, [increased] self-esteem, because first of all I'm fitter, I think it also makes me a nicer person to be around.
Joe (Lines 172-173)

It's a sense of achievement and self-worth I get from it, and it's that I've done something. I've actually completed it.
Graham (Lines 9-11)

Goals are flexible and individualised. For example, different goals include: simply attending, improving times, attending so many times or a number of different venues. This flexibility increases accessibility as there is no rule of what parkrun is for, and participants can set goals that they can and want to achieve.

It was very much a physical sort of goal I thought about the weight I wanted to lose.
Claire (Lines 280-281)

I'd kind of said to myself I want to get below this time.
Sally (Line 162)

For me it's about having done it.
Alison (Line 137)

Participants also reported setting goals within runs, which helped maintain motivation.

You never start it thinking right I'm gonna be near him, or keep an eye on him and yet the run evolves…you start thinking I need something to motivate me, to keep going, what is it? OK, I hate being overtaken by 10-year-old children and I will do everything in my power to chase them as fast as I can, knowing that I can never catch them in the last 500 metres anyway, but, I'll still have a go.
Harry (Lines 96-101)

It might just be that you will run that specific little stretch between x tree and y tree faster than you have done before, or it might be that you will

try to do the whole race in a new way, but you've got so many things that you can do within your run.
Karen (Lines 280-283)

Accomplishment

Participants described a strong sense of accomplishment from participating. This improved mood and confidence.

It is hard work to run a 5k for me. So, at the end, every Saturday it's a sense of achievement.
Graham (Lines 8-9)

It was just this amazing feeling of accomplishment of doing something that I didn't think I actually was capable of doing.
Karen (Lines 230-231)

It lifts my mood, I feel better after I've done it, not just the sense of accomplishment, [it] generally makes me feel better all round.
Richard (Lines 86-88)

It is sometimes difficult for participants to motivate themselves to attend, but they always feel glad when they do. Attending itself generates a feeling of accomplishment.

I don't think I've ever done a parkrun and thought I wish I'd stayed in bed so that always makes me go back the next week.
Sally (Lines 112-118)

You never regret a run, never which is just incredible
Kim (Line 37)

In addition to achieving at parkrun, it gives people a sense of confidence to achieve in other areas of life.

Parkrun is my constant thing that I did each week, that always made me feel like I achieved something that I never thought I could. It was a

reminder in that time when everything was really tumultuous that even if it seems like you can't do it, you might be able to.
Julie (Lines 82-85)

Knowing that I'm so much better makes me feel good, it makes me feel positive, it made me feel like I could achieve. If I can achieve this physically, it helps to reinforce achieving things at uni or work.
Heather (Lines 245-246)

It gives me that drive, that focus and that sense of achievement every week. If I can't achieve anything else in the week, I can achieve at parkrun.
Graham (Lines 222-224)

It's for everyone

Parkrun feels inclusive and welcoming. It is a safe environment and the familiarity of the routine is comforting. This theme contains four sub-themes: accessible, familiar, equal and choice.

Accessible

Parkrun feels highly accessible, and there are several things that help people engage. For example, the distance feels achievable for many people.

Initially, it just appealed to me this this concept of 5 kilometres, a very manageable distance.
Bill (Lines 110-111)

Parkrun is free and takes place nationwide and this increases accessibility.

Parkrun is a very good way of doing it because it's free and it doesn't need much kit. There are minimal barriers to entry.
Rob (Lines 257-258)

It's natural, it's free, it's for everyone
Rachel (Line 180)

There are parkruns all over the country I have done a couple away from home.
Alison (Lines 195-196)

In addition to this, the atmosphere of parkrun feels welcoming and inclusive.

There is very much a positive vibe. I think there's less of a barrier to entry, because…it is very inclusive.
Rob (Lines 75-77)

It struck me as being a friendly and inclusive thing to do on a Saturday morning.
Richard (Lines 20-21)

Parkrun is easy to participate in, which breaks down some of the barriers to participation.

It's just easy. It needs to be easy. It's not a chore
Harry (Line 640)

It's not difficult, it's simple to organise…turn up, smiley faces, people liking the fresh air and it's just so easy.
Penny (Line 37-41)

The volunteering opportunities make the event more accessible, as people who cannot run can participate. The range of roles also makes volunteering more accessible, including people with mental health difficulties.

I had knee surgery April 2015 which meant that there's a lot that I couldn't do for quite a number of weeks. So, I just volunteered all the time. Literally within days of my knee surgery I was volunteering at Parkrun, and it was great.
Penny (Line 7-9)

The run directors…that I volunteer for or run for all know my health conditions so they make allowances.
Bill (Lines 231-233)

There are volunteering posts that anyone can do, if your mental health is really bad. [If] you don't feel able to engage in tokens or timing because you don't feel able to focus at that level, you can still hold open a gate.
Alison (Lines 133-136)

Familiar

Parkrun is a safe environment and its familiarity contributes to this. People know the routines, even if they go to new events:

There's a ritualistic element of it which I quite like. I respond well to routine, and…feeling comfortable within that probably helps.
Joe (Lines 349-350)

It's somewhere different, yet It's familiar, it's a different place but the routine is familiar and all the characters are familiar.
Theresa (Lines 217-218)

Parkrun is dependable and people know that it will be there at the same time and same place each week:

Without having to think about it, you know it's there every Saturday.
Graham (Lines 383-384)

It's almost like…something I can depend on, everything changes, doesn't it? But that's always going to be there at 9am.
Theresa (Lines 192-193)

Equal

There is a sense of genuine equality at parkrun. Participants feel that everyone is equal from the fastest to the slowest runners and nobody is less important.

Everyone is trying to run the same course. You can be a runner regardless of whether you can get around in 10 minutes or an hour and 10 minutes. You're exactly the same as those elite runners because

you've all set off at the same time and you've all done that course.
Karen (Lines 216-220)

They had quite a lot of people. A lot of them were walking and running and there were children and there were dogs and there were pushchairs and wow! It was ok to be 17 and zip round, and it's ok to walk and talk. It's alright. It felt good.
Rachel (Lines 75-79)

Participants felt that it does not matter that they have mental health difficulties as it is not relevant. This reduces the stigma of mental health difficulties, and helps people feel more integrated into a community.

The fact I've got mental health doesn't matter, nobody cares, we're all there to do a 5k run, and it's nice, just going with that anonymity. People not knowing my background not knowing anything, I can relax more, I don't have to explain things to people. I'm just there to enjoy it.
Graham (Lines 280—284)

Choice

Parkrun is flexible and can be whatever people want it to be. There is a choice whether to run the event at all.

You turn up at the same time, every single week, if you want to.
Penny (Line 439)

There is a choice about which specific event to participate in.

There's about five different ones in my region so I alternate for a bit of variety.
Sally (Lines 69-70)

There is a choice of volunteering roles.

I volunteered for a few weeks doing the different roles and I really enjoyed that. I never thought that I'd have the confidence, to do the

stopwatch at the end. I thought that'll be way too much pressure. If I get this wrong no one's gonna forgive me, but with the support of the run directors, I did that role and I've done barcode scanning and marshalling on the course. I've really enjoyed those roles
Sally (Lines 247-252)

There is a choice about how much participants socialise with people. Socialising can be particularly difficult when mental health is poor, and so the possibility of not socialising makes the event more accessible to people with mental health difficulties.

You just turn up, and if you're not feeling great you can just say hi to a few people and do your run and go. If you're feeling more sociable, you can be.
Darren (Lines 208-210)

The social side if far more difficult when I'm low because, I don't want to talk to anyone, but that's ok when you're there.
Rachel (Lines 239-240)

There are choices about the goals that participants set.

For me it's not about the getting a PB every week it's about turning up and doing it.
Katy (Lines 256-257)

This means that people can use parkrun however they want to.

It does whatever it needs to do.
Harry (Line 380)

Nobody judges you, whether you're going just for the run or staying and having coffee afterwards. Sometimes you can socialise afterwards and sometimes you can't.
Darren (Lines 229-231)

Connecting with others

Participants described a strong sense of community. They are "in it together" and share something with other participants, which includes the physical act of running, and a shared sense of accomplishment. This theme contains four sub-themes: supportive environment, giving and receiving, socialising and identity and purpose.

Supportive environment

Parkrun has a friendly welcoming atmosphere which encourages participation. Participants feel that they are sharing something good. People described parkrun being like a family and in some cases like a church.

> *It's like a church without God.*
> *Ellen (Line 8)*

> *The people that you meet there become like a family.*
> *Hannah (Line 29)*

Parkrun helps reduce isolation, and gets people in touch with their communities. This improves mood and gives people a positive experience of others. It helps people feel acknowledged and valued.

> *Whatever the opposite of lonely is, that's parkrun.*
> *Ellen (Line 39-40)*

> *I think at times if you're feeling isolated, because you feel quite negative about life, or you're feeling depressed or anxious, then to go somewhere and just have someone say: "oh hello, it's you again, I haven't seen you for a while," it's wonderful because you feel valued.*
> *Karen (Lines 327-330)*

There is a sense that participants genuinely invest in and care about each other. This improves self-esteem and sense of worth.

> *People get cheered if they're incredibly slow or whether they're the fastest, and its genuine, it's very genuine, it's very authentic, it's not*

contrived, it's not forced.
Penny (Lines 344-346)

People care about you as much as you care about them.
Hannah (Line 53)

Giving and Receiving

People reported feeling encouraged and supported at parkrun, but also valuing the opportunities to give back. Participants can support others as they have been supported.

I always try to encourage people and get them to participate if I can, because I see the benefits of it.
Sally (Line 341-342)

It's so encouraging and it gives community, when some of us don't have community in our lives otherwise
Alison (Lines 84-85)

There is an element of a sense of purpose and a sense of achievement. You come home [after organising] an event, it was successful, I think they had a good time.
Harry (Line 430-432)

It's very welcoming and very friendly, everyone's smiling and all the volunteers are amazing because they cheer you on all the way round. At the point where I get to about 3 to 4K in and I want to die (laughs) and there's always a volunteer there cheering you on saying only a little bit further, and you think no there isn't, but I'm gonna get over it.
Graham (Lines 45-49)

There's satisfaction in helping to keep parkrun going. It's almost like the parkrun family, it's like being a member of the family, instead of taking something out all the time
Theresa (Lines 108-110)

Socialising

Participants value opportunities to socialise and make friends. The shared interest in running helps with this. This reduces isolation and widens social connections, both within and outside of parkrun.

> *You get to make friends. People invite you to coffee, really encourage you and just generally make you feel welcome*
> *Darren (Lines 17-18)*

> *When I'm volunteering, it's just a lovely thing. They're not, socially, people I would spend time with, because they're usually very sporty [but] I have made some lovely friendships.*
> *Kim (Lines 314-316)*

> *You can meet up with people at the café, people you wouldn't ordinarily meet.*
> *Hannah (Line 49)*

> *You come together and you're amongst other people, that can be a very positive thing for mental health, because you feel less lonely and less isolated.*
> *Karen (Lines 367-369)*

Identity & Purpose

People reported that parkrun has given them a sense of identity. People identify themselves as runners, or part of a community rather than being someone with a mental health problem. This reduces the stigma associated with mental health difficulties.

> *Parkrun got me back in touch with who I am as a person not just a mental health person and not just a list of diagnoses and things wrong with me.*
> *Claire (Lines 313-314)*

When I first went I was the lady with the buggy and now I'm me.
Ellen (Line 33-34)

People feel like they belong to something. They feel valued, useful and appreciated, which builds confidence. Parkrun gives people a sense of purpose.

It gives you a feeling of belonging and a feeling of being part of something, like part of a family.
Theresa (Lines 425-426)

You feel you're valued as part of a team of volunteers.
Bill (Lines 183-184)

It makes you be in the world, it makes you feel part of something.
Rachel (Line 336)

Discussion

Mental health benefits of physical exercise, community involvement, volunteering and being outdoors have been identified, by previous research. Parkrun is a community-based mass participation running event, which offers opportunities for all these elements. There is potential, therefore, for parkrun to improve psychological wellbeing. This study aimed to explore the experiences of people with a history of mental health difficulties, at parkrun. A thematic analysis of interview data was conducted and three themes were identified: "sense of achievement," "connecting with others" and "it's for everyone." The current study supports the notion that outdoor community-based exercise can benefit mental health. Parkrun may be an efficient way of putting the FWTW into practice as participants discussed benefits of parkrun which were consistent with these, such as giving to and connecting with others.

Participants universally described parkrun as beneficial to their psychological wellbeing. The factors that contributed to this were consistent with previous research (Zschucke et al., 2013; Harvey et al., 2009, Bragg et al., 2013). For example, people discussed the benefits of exercise, being outdoors and being around others. However, more significant than the physical aspect of parkrun was the sense of community and social opportunities. Participants discussed the physiological benefits of running, but more emphasis was placed on the sense of accomplishment through running.

The atmosphere at parkrun was frequently discussed. Participants felt that parkrun had a positive, non-judgmental "vibe" where people could be themselves. The most consistent benefits described were improved confidence and self-worth. People felt valued for both their achievements and their contributions to parkrun.

A previous thematic analysis conducted with parkrun participants, exploring motivations for participation, established two themes: reciprocity and choice (Stevinson et al., 2015). These themes were reflected in the current study. Participants consistently discussed ways in which parkrun had enhanced their

lives and the importance of “giving back” to parkrun. The importance of choice was also evident and participants discussed the choices available in multiple elements of parkrun. Parkrun was considered highly inclusive and accessible by participants, which is especially relevant as people with mental health difficulties experience high levels of exclusion (Boardman, 2011).

Although negative aspects of parkrun were discussed, no specific negative element was mentioned consistently. Most commonly participants described feeling guilty for not attending, because they feel like they have missed-out on something positive. Some participants described anxiety before running and anxiety prior to first starting parkrun, especially worries about finishing last. The atmosphere at parkrun helps reduce these anxieties. An extract from interview 11 is presented (Appendix L) to demonstrate an example of how participants discussed negative elements of parkrun.

Although, as a qualitative study, this research does not add quantifiable evidence that parkrun improved wellbeing, the findings are consistent with previous research that identified psychological benefits of participation in parkrun (Stevinson & Hickson, 2014; Rogerson et al., 2016).

With regards to the researcher’s expectations there were some similarities, however, there were significant differences in the emphasis and importance of certain elements. The procedure of transcription, coding and analysis appeared to minimise researcher bias, as the themes developed were not consistent with researcher expectation. For example, physical exercise itself was not developed as a theme. All participants talked about exercise, but participants considered running a means of achieving something and bringing them into a community of people. Community was a more significant factor in participants’ experiences, and there was less emphasis than expected on the benefits of exercise. Volunteering was also important, but not in the manner expected. Volunteering was discussed as an aspect of the reciprocal nature of parkrun, rather than a significant factor itself. Therefore, it was not simply giving that was beneficial, but giving and receiving, and volunteering played an important role in this.

Although conclusions about the exact impact of parkrun on mental health are outside of the aims of this study, the research provides evidence that parkrun can be beneficial to people with current or past experiences of mental health difficulties. Participants felt that parkrun helped improve mood, increase confidence and self-esteem and reduce isolation. This demonstrates the benefits of parkrun itself and more broadly the benefits of alternative ways of supporting those with mental health difficulties. David Smail argued that creating communities and social structures in which people "take care" of each other was a more appropriate way of treating distress than individual therapies, which often place the difficulty within the person (Smail, 1987; Smail, 1998). Such environments can generate feelings of self-worth, and may decrease the likelihood of people experiencing psychological distress. This study demonstrates the impact that a supportive and encouraging community can have on individual mental health, and the improvements in confidence and self-worth that such an environment can have. More research needs to be conducted, to further this understanding.

Limitations

As with any approach to research thematic analysis has limitations. The level of analysis is not as in depth as other qualitative approaches, such as IPA, which examines fewer participants in greater depth. Compensating this is the broader range of experiences that recruiting more participants allows. The nature of qualitative analysis introduces the potential for researcher bias, which was exacerbated in this study, by the researcher's knowledge of the subject. Steps were taken to mediate this, such as the researcher keeping a reflective log, and checking themes with an independent researcher. However, it is not possible to eliminate researcher bias entirely from qualitative research.

Only participants who had access to a computer and e-mail would have seen the advertisement, and been able to respond, although an e-mail address is necessary to register at parkrun.

Most of the interviews were conducted electronically, with only one conducted face to face. The advantage of this was that it allowed nationwide participation, at convenient times. However, there are disadvantages to conducting interviews electronically. For example, non-verbal cues are lost during telephone conversations, and rapport can be more difficult to establish, which may have altered the interviewer's responses to participants.

Another limitation of the study is potential participant bias. Participants were recruited from people who both participated regularly in parkrun and read the parkrun newsletter, and so were more likely to be enthusiastic about parkrun. There were also several stages of recruitment which may have further increased the risk of more enthusiastic participants engaging. The researcher tried to mitigate this by enquiring about negative elements. However, the scope of this study was to explore the experiences specifically of people who had regularly participated in parkrun.

Participants were asked to identify themselves as having experienced mental health difficulties, and no diagnosis was required for participation. This means that the impact of the study on different severities of mental health difficulty could not be examined. People with more severe mental health problems may have been less likely to participate, as they may have been less willing to speak about their experiences or more anxious about participating. This limits the transferability of the study's findings.

Clinical Implications

This study highlights the importance of community and belonging to participants. The sense of community, friendship and camaraderie, was more important to participants than physical exercise. This suggests that initiatives emphasising a sense of community and support may be beneficial to mental health and wellbeing, which is supported by previous research.

Parkrun itself may prove beneficial to people with mental health difficulties, and this study demonstrates the potential to support people outside of traditional

mental health services. Participation in a community event such as this may be more acceptable and therefore accessible to people with mental health difficulties, and may help reduce the stigma of accessing mental health services. However, further research would be required to draw conclusions about this. Randomised control trials (RCT's) would be beneficial to establish the impact that regular participation in parkrun has on measures of mental health, compared to comparison groups. This would also allow data to be gathered about engagement and drop-out rates, as this study only recruited people who already engaged regularly in parkrun. Studies looking at a range of mental health presentations would be helpful to identify who could benefit from parkrun. Further qualitative research would be help build upon the themes established here, and to gain further insight into individuals experiences.

It is important to recognise that parkrun does not have universal appeal. Although volunteering opportunities make parkrun accessible to most people, some people may not wish to participate in a running event. The information gathered in this study however could be used to inform initiatives in areas other than physical exercise, such as arts or music or in less strenuous forms of exercise like walking. A limitation to this, is that parkrun was started as a way of measuring running progress over five-kilometres for free. Parkrun has gradually grown into what it is today, and it may be difficult to replicate many of the features of parkrun that make it successful and beneficial, such as the genuine supportive and inclusive environment.

In addition to being published in an academic journal this research will also be disseminated to parkrun users through parkrun's electronic newsletter, and to mental health organisations.

Conclusion

Parkrun can be beneficial to people with an experience of mental health difficulties. Most beneficial to participants was feeling a sense of belonging, community and acceptance. A sense of achievement and accomplishment was also important. Although as a qualitative study the findings are not generalisable,

they highlight the potential of parkrun and the importance of community, belonging and achieving in improving mental health. More research should be conducted both qualitatively and quantitatively. RCT's would be beneficial to establish the benefits of parkrun on mental health in comparison to other interventions or control conditions, and to give data about engagement and participation in parkrun. Qualitative studies could add more depth and understanding of participants experiences. The research also highlights the potential benefits of supporting individuals with methods outside of traditional therapeutic settings.

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Paper Three: Commentary and Reflective Review

Reflections on the process

Word Count: 3167

Abstract

The purpose of this paper is to present personal reflections on the process of producing a doctoral level research thesis. The writing of this paper was supported by a research journal which was maintained throughout the process. Discussion of the process of writing the narrative literature review and empirical paper is presented, as are details of the context in which this research was conducted.

Introduction

The British Psychological Society (BPS) considers the ability to be a reflective scientist practitioner as a core competency for trainee clinical Psychologists (BPS, 2014). With that in mind, in this paper I will provide my own personal reflections about the process of producing this thesis. I will discuss the background to the project, and the process of writing both the narrative review and empirical paper. I will also talk about challenging situations personally, which have made the completion of this thesis more difficult.

Context

I will start by discussing my personal circumstances, to give the reader an understanding of the context in which this research was conducted. In September 2016, my mother was taken into hospital. A few days later was diagnosed with terminal cancer, and told that she had just two weeks to live. She lived considerably longer than this, passing away in April 2017. However, the intervening seven months were very challenging, as she was very poorly during this time. She was frequently moved between a hospice, the hospital and home, and was often highly distressed and in pain and discomfort.

This happened during a critical period in my clinical psychology training. Personally, this was obviously a very challenging time, but it also impacted on my perceptions of my professional and academic ability. I had felt my confidence grow throughout training and was feeling confident about being a qualified clinical psychologist. I was also positive about where I was with my research, as I had conducted many interviews in the summer of 2016. I was confident that I was on track with everything. However, as I started falling behind with things and missing deadlines for drafts, my confidence started to ebb away. Feelings of being a fraud and “not good enough” which were common for me when I started training, were starting to creep back. I struggled to be compassionate with myself, and was critical to myself for not being able to complete the work to deadlines. I was also critical of myself as a son, as I continued working. I worried about how much I was there for my mom and family. Eventually I had to apply

for extenuating circumstances. This was a difficult thing to do, but the reality of my situation became more and more apparent as the months went on.

I mention this here as it had a significant impact on the writing of this thesis, and speaking reflectively about this process without mentioning it would be insincere, and to say that it didn't have an impact would be a lie. This is especially true of the narrative review, which I was working on when she went into hospital. My relationship with my thesis was very difficult at times, because of how challenging the work was, and because of my personal circumstances. I started to resent the work for taking me away from something important, sometimes physically and sometimes emotionally. However, I now recognise that to some degree the thesis was symbolic of how unhappy and angry I was about everything and provided something to direct my frustrations towards.

Background

I first had the idea for this research project at Hanley parkrun in Stoke-on-Trent. I had already submitted a research proposal for a different project, but was feeling unenthused about it. I was struggling to think of something that I could really feel passionate about. I had recently been reading a book by David Smail, and was fascinated by his ideas of psychology for the community (Smail, 1987). I was interested in the idea of creating communities and systems, where people took care of each other, and the idea that distress could be reduced in this way. I thought about ways to conduct research in this area, but felt this would be challenging. I also wondered how practical these ideas were in the real world.

Standing at Hanley parkrun observing my environment, one weekend, it occurred to me that parkrun was like community psychology incognito. Here was a free event, run all over the country, which was easy to participate in, run not for profit by volunteers. There was a real sense of community and support at parkrun. I wondered whether this was something that I could turn into a research project. Part of me was reluctant to consider this further as I enjoyed parkrun and didn't want it to turn into something that I associated with stress and work. However, I

was excited about the prospect of conducting research that I felt passionate about.

I was also concerned that I wouldn't be able to explain parkrun's relevance to clinical psychology. The purpose of an applied psychologist and a scientist practitioner, in my mind, is to take what we know about people through theory and research and to find applications of this knowledge in the real world. There were several ways that I felt parkrun could be beneficial to mental health. I felt that if parkrun had the potential to improve mental health and reduce distress it was relevant, even though it didn't support mental health in a traditional way. It has been reported that despite evidence suggesting that exercise is good for mental health, professionals are reluctant to promote exercise as a treatment for mental health difficulties (Daley, 2002). This may be due to people not understanding how exercise helps, but may also because it doesn't fit into the traditional view of what treatment looks like. We know that exercise is beneficial physically and mentally and that social inclusion improves mental health. Studies have also shown that volunteering and having a sense of purpose can improve mental health, and that being outdoors is associated with better psychological wellbeing. From this perspective parkrun appeared highly relevant to clinical psychology, if you consider our role of using psychological knowledge to improve mental health.

One element of parkrun that I feel has contributed to its success was how organically it grew. It started as a weekly get together of a few runners in a single park in west London and grew from there. This led to another concern. If the success of parkrun is due to how naturally it grew then how replicable is it? If I demonstrated that parkrun was helpful to people then would mental health services promote is as a treatment for mental health? In short, how could my research be used? I felt however that despite these concerns it was important to study, as parkrun had the potential to help people.

Another reason for wanting to move away from therapeutic approaches was my own disillusionment with talking therapies, which is one of the reasons I was

attracted to community psychology. I had become more conscious of instances where psychological suffering was the consequence of people's surroundings and felt that at times I was pathologising people and placing the fault in them not in their volatile environments. However, I am certainly not anti-therapy. These views are at odds with my own experiences of helping people through therapy and recognising the positive impact that therapy can have on people's lives. This is true of my own experience of personal therapy, which has genuinely been beneficial to me. My position was of doubting the universal usefulness of therapy and recognising that other ways of reducing distress could be appropriate. I felt that creating supportive environments may help reduce psychological distress or prevent it from developing.

Narrative Literature review

The early stages of conducting my narrative review happened alongside my mother becoming ill. The period in which I was writing this review therefore was punctuated with difficult experiences as her mood and health fluctuated, but ultimately deteriorated. At the beginning of the process I feel that this impacted upon my ability to make good decisions and understand the processes of the review. When I initially chose my topic, and conducted my search I was in firefighting mode and was trying to keep on top of the mounting stress that I felt. Most days I felt completely emotionally drained.

Thankfully my supervisor was understanding about my circumstances and the impact on my work. However, I feel that mistakes I made during the selection of my articles impacted upon the rest of this process. I decided to re-run my literature search late on, to make the review more comprehensive and altered the appraisal tool that I used to appraise the articles. I feel that this strengthened the review, but added considerable pressure to myself.

When I started the narrative review process I was sure that I would find good evidence that exercise in the community benefitted both mental health and social factors, however the more I read about the subject the less apparent the benefits seemed. I became aware that the claims made in the study's abstracts

sometimes didn't reflect the strength of the evidence. The evidence was either poor quality, had small effect sizes or measured mental health in a limited way. I was also surprised by how few papers had specifically looked at community exercise. Many projects looked at exercise and mental health, but few explored social exercise. Some studies examined community-based exercise almost incidentally, for example conducting exercise in groups, without considering the impact of the group environment. It seemed to me obvious that exercise in the community should be beneficial, but my conclusion ended up being that there wasn't enough good evidence to be certain about this. This left me with some personal disappointment as I had expected to find stronger evidence, but also emphasised to me the importance of the research that I was conducting. This experience demonstrated to me the value and importance of conducting reviews, considering research quality, and not taking abstract claims at face value.

Synthesising the studies was a challenging task, as the aims, designs and theoretical backgrounds to the studies varied greatly. I struggled to know how best to do this, and felt anxious about the quality of this element of my research. However, in the end I synthesised my findings in a way that I felt made most sense to me for the articles that I had selected.

I was encouraged somewhat by two of the qualitative studies, where participants described similar experiences to the participants in my study (Thorpe, Anders & Rowley, 2014; Mason & Holt, 2012). This made me feel that there was something positive and beneficial about these initiatives. As there was insufficient research into the psychological and social impact of community-based exercise, I was positive about the fact that I was contributing to an under-researched area.

Empirical Paper

I decided to conduct a thematic analysis (TA). I chose this methodology for several reasons. As I was interested in hearing about experiences, either an Interpretive Phenomenological Analysis (IPA) or TA seemed most appropriate. I considered other approaches but felt that IPA or TA fit best. I chose TA partly

because of how new this research area was, as it would allow me to interview more people. I anticipated that a lot of people would be interested in participating and so wanted to gather more experiences. TA also allowed me to choose the most appropriate epistemological position. Although I was interested in constructionism, I decided that a critical realist approach was most appropriate. Critical realism is the position of community psychology, and fit best with the aims of the study.

Recruitment for the study was easy, and I had sufficient replies to the advert before I even realised it had gone out. I gained permission to place the advert on the Facebook pages of local runs, but didn't need to. This meant however that all but one of the interviews were conducted by skype or telephone. Personally, I would have preferred face to face contact, but the telephone and skype interviews allowed a great level of flexibility, and allowed me to conduct interviews at night time and the weekend.

I was able to conduct the interviews over the Summer of 2016. It felt good to get a significant part of the research completed so far in advance and made me feel better about having to take time away from it. The transcription was tedious, but I recognised the benefit of doing it. I became much more familiar with the content of the interviews during transcription. The coding was also time-consuming, and initially I generated dozens of codes. It took some time to streamline these codes, but many of them could be collapsed. The generation of the themes was an interesting process. Community was a theme that I expected to generate before the start of the project. However, I didn't realise the extent to which community was important to people and how much value people placed on the sense of belonging. I expected a theme about the physical element of running, but didn't generate this. Personally, I use running to destress and always feel "lighter" after I run. Some participants did describe feeling less stressed, but there was not enough emphasis on the physical act of running for it to be a theme. The achievement theme was perhaps unsurprising as I have experienced this myself, but the inclusive and safe theme was something that I hadn't considered

significantly prior to the study. I had thought that inclusivity would be mentioned, but perhaps expected this would be part of the community theme. However, there was something about the inclusivity of parkrun which was different from what people said about the community.

The process of conducting the analysis was interesting, as I felt the process minimised my own bias. For example, I thought that physical exercise would be a prominent theme, and when speaking to people it came up fairly often. However, when conducting the coding I became aware that actually people weren't really talking about physical exercise in the way I expected. Physical exercise was a means of achieving something, and bringing people together. I am sure that physical exercise is beneficial to mental health, but with parkrun specifically it does not seem to be the most important element. This gave me confidence that my own biases were not influencing themes. The benefit of detailed coding became apparent to me, and elicited a truer picture of what participants were saying. I enjoyed this element of my research project, despite finding it stressful at times, and despite the laborious nature of transcription. I found talking to people fascinating, enjoyable and even inspiring, and the theme generation was interesting, and a useful process to experience. I felt pleased with the outcome of this research, although frustrated at times that I didn't have enough time to spend on certain elements of it.

Conclusion

Writing this thesis was a very difficult process for me. At times I enjoyed it (such as when conducting the interviews) and at times I hated it (such as when I felt like I could not do the work). My expectations of what I would achieve changed from wanting to do a good and original piece of work to simply wanting to complete the thesis. However, I hope now that with I have achieved both of these aims. This thesis was written during the most difficult time of my life and it is with great sadness now that I submit it. The shadow of the thesis hung over the landscape of my mother's final few months and at times I felt impeded my ability to truly cherish the time that we had together, as it was always in the back of my

mind. Conversely to this I also feel some apprehension as producing this project has distracted me in some ways from the grief and the reality of what has happened.

When I started training, thesis felt like a scary, but distant, thing. When I decided to conduct my research on parkrun, it was no longer scary. I was enthusiastic, and felt that it was something I would enjoy. Circumstances changed my relationship with my thesis significantly. It became something that I resented and something that I was angry towards. However, the reality was that I was completing a very lengthy and challenging piece of work whilst I was going through a huge period of personal upheaval. There were times when I enjoyed the process, although these times are harder to connect to now.

I considered my own identity as a runner, and don't feel this has changed significantly through completing this thesis. Since starting parkrun I have felt strongly that it is a good thing. I felt through this project, however, that I was perhaps missing out on something. I often speak to people at parkrun, but have not made friends, or experienced such a high level of support and camaraderie that the participants in this study described. However, I felt connected to the participants when they described things that I could relate to. It gave me a sense of fellowship and shared experience. For example, running increases my confidence, gives me a strong sense of achievement and helps me feel peaceful and destressed.

There were elements of my research that I didn't get to spend sufficient time on and additional things I would have liked to have done. For example, the university ran a peer support IPA group, although I wasn't conducting an IPA project I was intending to go to the group, but circumstances made attendance difficult and I only attended once. I made up for this to some extent by discussing my project in detail with peers who were conducting their own qualitative studies.

I think that a particularly difficult element of this process for me was feeling alone. My peers were very supportive and understanding, but were all at different stages. Hearing about people submitting theses and later going through viva,

just compounded how behind I was and reinforced how inadequate I felt. I accessed personal therapy during this time, and this was a great support. I think more than anything it helped me to acknowledge that what I was experiencing emotionally was normal in the circumstances, and that my thoughts about myself was just how I was feeling rather than either a true reflection of my abilities, or confidence.

Although at times I felt deskilled and even incompetent during this process, I feel now that I have achieved something significant, simply by completing it in these circumstances. This is true for the third year of my training in general, but particularly this thesis. I feel more positive about having completed this piece of work and hope that by completing it I can draw a line under this period of my life, and move forwards into my new role as a clinical psychologist.

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Appendix A: Author Guidelines for Mental Health and Physical Activity Journal

GUIDE FOR AUTHORS.

INTRODUCTION

Mental Health and Physical Activity (MENPA) is an international forum for scholarly reports on any aspect of relevance to advancing our understanding of the relationship between mental health and physical activity. Manuscripts will be considered for publication which deal with high quality research, comprehensive research reviews, and critical reflection of applied or research issues. The journal is open to the use of diverse methodological approaches. Reports of professional practice will need to demonstrate academic rigour, preferably through analysis of programme effectiveness, and go beyond mere description.

Submission checklist

You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details. Ensure that the following items are present: One author has been designated as the corresponding author with contact details: • E-mail address • Full postal address All necessary files have been uploaded: Manuscript: • Include keywords • All figures (include relevant captions) • All tables (including titles, description, footnotes) • Ensure all figure and table citations in the text match the files provided • Indicate clearly if color should be used for any figures in print Graphical Abstracts / Highlights files (where applicable) Supplemental files (where applicable) Further considerations • Manuscript has been 'spell checked' and 'grammar checked' • All references mentioned in the Reference List are cited in the text, and vice versa • Permission has been obtained for use of copyrighted material from other sources (including the Internet) • A competing interests statement is provided, even if the authors have no competing interests to declare • Journal policies detailed in this guide have been reviewed • Referee suggestions and contact details provided, based on journal requirements

Preparation

Cover letter: The cover letter accompanying the manuscript submission must include all authors' names and affiliations to avoid potential conflicts of interest in the review process. An address, phone number, email address and fax number should be provided for the corresponding author for possible use by the editorial office and later by the production department. The cover letter should indicate any potential conflicts of interest (e.g., commercial sponsorship). The source of any funding that may have contributed to the production of the research and/or manuscript should be declared in the cover letter, and if the manuscript is accepted for publication, as an acknowledgement in the published paper.

General: Manuscripts should be prepared following the general style guidelines described in the Publication Manual of the American Psychological Association (Latest Edition). Do not import the Figures or Tables into your text. The Editors reserve the right to adjust style to certain standards of uniformity.

Paper Length: All manuscripts should be presented as concisely as possible, and our preference is to receive manuscripts that are 30 A4, double spaced pages or less (APA format), including text, references, figures, and tables. For longer manuscript, authors should contact an Editor in Chief prior to submission with a clear justification for the need for a longer manuscript. Short Communications are also accepted and encouraged. These are typically no more than 15 A4, double spaced pages (APA format). Occasionally other forms of submission may be of interest to the Editors/readers such as book reviews, commentaries, and news items.

Essential title page information

• Title. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible. • Author names and affiliations. Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lowercase superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author. • Corresponding author. Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author. • Present/permanent address. If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Abstract Papers should include an abstract, not exceeding 250 words, covering the main factual points and statement of problem, method, results and conclusions.

Appendix B: Author guidelines for International Journal of Mental Health Promotion

About the journal

International Journal of Mental Health Promotion is an international, peer reviewed journal, publishing high-quality, original research. Please see the journal's Aims & Scope for information about its focus and peer-review policy.

Please note that this journal only publishes manuscripts in English.

Peer review

Taylor & Francis is committed to peer-review integrity and upholding the highest standards of review. Once your paper has been assessed for suitability by the editor, it will then be double blind peer-reviewed by independent, anonymous expert referees. Find out more about what to expect during peer review and read our guidance on publishing ethics.

Preparing your paper

Word limits

Please include a word count for your paper.
A typical article for this journal should be no more than 5000 words; this limit does not include tables, references, figure captions, footnotes, endnotes.

Style guidelines

Please refer to these style guidelines when preparing your paper, rather than any published articles or a sample copy.

Please use British spelling style consistently throughout your manuscript.

Please use single quotation marks, except where 'a quotation is "within" a quotation'. Please note that long quotations should be indented without quotation marks.

Formatting and templates

Papers may be submitted in any standard format, including Word and LaTeX. Figures should be saved separately from the text. To assist you in preparing your paper, we provide formatting templates.

A LaTeX template is available for this journal.

Word templates are available for this journal. Please save the template to your hard drive, ready for use.

If you are not able to use the templates via the links (or if you have any other template queries) please contact authortemplate@tandf.co.uk

References

Please use this reference style guide when preparing your paper. An EndNote output style is also available to assist you.

Checklist: what to include

1. **Author details**. Please include all authors' full names, affiliations, postal addresses, telephone numbers and email addresses on the title page. Where available, please also include ORCID identifiers and social media handles (Facebook, Twitter or LinkedIn). One author will need to be identified as the corresponding author, with their email address normally displayed in the article PDF (depending on the journal) and the online article. Authors' affiliations are the affiliations where the research was conducted. If any of the named co-authors moves affiliation during the peer-review process, the new affiliation can be given as a footnote. Please note that no changes to affiliation can be made after your paper is accepted. Read more on authorship.
2. A non-structured **abstract** of more than 100 and no more than 150 words. Read tips on writing your abstract.
3. **Graphical abstract**(Optional) . This is an image to give readers a clear idea of the content of your article. It should be a maximum width of 525 pixels. If your image is narrower than 525 pixels, please place it on a white background 525 pixels wide to ensure the dimensions are maintained. Save the graphical abstract as a .jpg, .png, or .gif. Please do not embed it in the manuscript file but save it as a separate file, labelled GraphicalAbstract1.
4. You can opt to include a **video abstract** with your article. Find out how these can help your work reach a wider audience, and what to think about when filming.
5. Up to 5 **keywords**. Read making your article more discoverable, including information on choosing a title and search engine optimization.
6. **Funding details**. Please supply all details required by your funding and grant-awarding bodies as follows:
   For single agency grants: This work was supported by the[Funding Agency] under Grant [number xxxx].
   For multiple agency grants: This work was supported by the [funding Agency 1]; under Grant [number xxxx]; [Funding Agency 2] under Grant [number xxxx]; and [Funding Agency 3] under Grant [number xxxx].
7. **Disclosure statement**. This is to acknowledge any financial interest or benefit that has arisen from the direct applications of your research. Further guidance on what is a conflict of interest and how to disclose it.
8. **Geolocation information.** Submitting a geolocation information section, as a separate paragraph before your acknowledgements, means we can index your paper's study

area accurately in JournalMap's geographic literature database and make your article more discoverable to others.

9. **Supplemental online material.** Supplemental material can be a video, dataset, fileset, sound file or anything which supports (and is pertinent to) your paper. We publish supplemental material online via Figshare. Find out more about supplemental material and how to submit it with your article.
10. **Figures.** Figures should be high quality (1200 dpi for line art, 600 dpi for grayscale and 300 dpi for color, at the correct size). Figures should be saved as TIFF, PostScript or EPS files. More information on how to prepare artwork.
11. **Tables.** Tables should present new information rather than duplicating what is in the text. Readers should be able to interpret the table without reference to the text. Please supply editable files.
12. **Equations**. If you are submitting your manuscript as a Word document, please ensure that equations are editable. More information about mathematical symbols and equations.
13. **Units.** Please use SI units (non-italicized).

Appendix C: Crowe Critical Appraisal Tool (CCAT) (Crowe, 2013)

Category Item	Description of item [☑ Present; ☒ Absent; ■ Not applicable]	Score [0–5]
Preamble		
Text	1. Sufficient detail others could reproduce ❑ 2. Clear/concise writing ❑, table(s) ❑, diagram(s) ❑, figure(s) ❑	**Preamble score**
Title	1. Includes study aims ❑ and design ❑	
Abstract	1. Key information ❑ 2. Balanced ❑ and informative ❑	
Introduction		
Background	1. Summary of current knowledge ❑ 2. Specific problem(s) addressed ❑ and reason(s) for addressing ❑	**Introduction score**
Objective	1. Primary objective(s), hypothesis(es), or aim(s) ❑ 2. Secondary question(s) ❑	
Design		
Research design	1. Research design(s) chosen ❑ and why ❑ 2. Suitability of research design(s) ❑	**Design score**
Intervention, Treatment, Exposure	1. Intervention(s)/treatment(s)/exposure(s) chosen ❑ and why ❑ 2. Precise details of the intervention(s)/treatment(s)/exposure(s) ❑ for each group ❑ 3. Intervention(s)/treatment(s)/exposure(s) valid ❑ and reliable ❑	
Outcome, Output, Predictor, Measure	1. Outcome(s)/output(s)/predictor(s)/measure(s) chosen ❑ and why ❑ 2. Clearly define outcome(s)/output(s)/predictor(s)/measure(s) ❑ 3. Outcome(s)/output(s)/predictor(s)/measure(s) valid ❑ and reliable ❑	
Bias, etc	1. Potential bias ❑, confounding variables ❑, effect modifiers ❑, interactions ❑ 2. Sequence generation ❑, group allocation ❑, group balance ❑, and by whom ❑ 3. Equivalent treatment of participants/cases/groups ❑	
Sampling		
Sampling method	1. Sampling method(s) chosen ❑ and why ❑ 2. Suitability of sampling method ❑	**Sampling score**
Sample size	1. Sample size ❑, how chosen ❑, and why ❑ 2. Suitability of sample size ❑	
Sampling protocol	1. Target/actual/sample population(s): description ❑ and suitability ❑ 2. Participants/cases/groups: inclusion ❑ and exclusion ❑ criteria 3. Recruitment of participants/cases/groups ❑	
Data collection		
Collection method	1. Collection method(s) chosen ❑ and why ❑ 2. Suitability of collection method(s) ❑	**Data collection score**
Collection protocol	1. Include date(s) ❑, location(s) ❑, setting(s) ❑, personnel ❑, materials ❑, processes ❑ 2. Method(s) to ensure/enhance quality of measurement/instrumentation ❑ 3. Manage non-participation ❑, withdrawal ❑, incomplete/lost data ❑	
Ethical matters		
Participant ethics	1. Informed consent ❑, equity ❑ 2. Privacy ❑, confidentiality/anonymity ❑	**Ethical matters score**
Researcher ethics	1. Ethical approval ❑, funding ❑, conflict(s) of interest ❑ 2. Subjectivities ❑, relationship(s) with participants/cases ❑	
Results		
Analysis, Integration, Interpretation method	1. A.I.I. method(s) for primary outcome(s)/output(s)/predictor(s) chosen ❑ and why ❑ 2. Additional A.I.I. methods (e.g. subgroup analysis) chosen ❑ and why ❑ 3. Suitability of analysis/integration/interpretation method(s) ❑	**Results score**
Essential analysis	1. Flow of participants/cases/groups through each stage of research ❑ 2. Demographic and other characteristics of participants/cases/groups ❑ 3. Analyse raw data ❑, response rate ❑, non-participation/withdrawal/incomplete/lost data ❑	
Outcome, Output, Predictor analysis	1. Summary of results ❑ and precision ❑ for each outcome/output/predictor/measure 2. Consideration of benefits/harms ❑, unexpected results ❑, problems/failures ❑ 3. Description of outlying data (e.g. diverse cases, adverse effects, minor themes) ❑	
Discussion		
Interpretation	1. Interpretation of results in the context of current evidence ❑ and objectives ❑ 2. Draw inferences consistent with the strength of the data ❑ 3. Consideration of alternative explanations for observed results ❑ 4. Account for bias ❑, confounding/effect modifiers/interactions/imprecision ❑	**Discussion score**
Generalisation	1. Consideration of overall practical usefulness of the study ❑ 2. Description of generalisability (external validity) of the study ❑	
Concluding remarks	1. Highlight study's particular strengths ❑ 2. Suggest steps that may improve future results (e.g. limitations) ❑ 3. Suggest further studies ❑	

Appendix D – Staffordshire University Faculty of Health Sciences Research Ethics Committee, confirmation of ethical approval.

Faculty of Health Scie

FULL ETHICS REVIEW APPROVAL FEEDBACK

Researcher Name:	Paul Morris
Title of Study:	Not just a run in the park
Status of approval:	Approved

Thank you for forwarding the amendments requested by the Ethics Panel.

Action now needed:

Your project proposal has been approved by the Faculty's Ethics Panel and you may commence the implementation phase of your study. You should note that any divergence from the approved procedures and research method will invalidate any insurance and liability cover from the University. You should, therefore, notify the Panel of any significant divergence from this approved proposal.

When your study is complete, please send the ethics committee an end of study report. A template can be found on the ethics BlackBoard site.

Signed: Dr Peter Kevern **Date: 26.2.16**
Chair of the Faculty of Health Sciences Ethics Panel

Appendix E – Parkrun Research Board, confirmation of ethical approval

Dear Paul,

I am writing to inform you that the parkrun Research Board has now approved your research support request and are offering you the support of an article in the parkrun UK newsletter as well as social media posts for events around the West Midlands.

Please can you provide me with the following:

- an article for the UK newsletter following the attached guidelines.

- confirmation of ethical approval as soon as it is received.

In addition to the above, I require a paragraph for our website, to go at the end of the lay summary, to inform interested parkrunners of how they can get in touch if they wish to take part in the research.

I note from your application that the intention is for the study to start in January 2016. Is this still the case, and if so, when would you like the study to be shared via the UK newsletter and via West Midlands event social media?

Please also find attached an 'approved by parkrun' logo which you can use on any promotional material if you wish. However, we urge you to consult our support page and attached guidelines which outline the use of this logo beforehand.

The Board has also made the following comments:

- The applicant should make it clear in his newsletter item that he is looking to recruit nationally, but some subjects may be interviewed virtually. His supervisor can advise on the implications of using different approaches (face to face vs telephone vs video call) within the same sample.
- The research project clearly relies on voluntary participation on the basis of self-declared mental difficulties (which is likely to encompass an enormous range of conditions). There is no definition of past or present "mental health difficulties" - on this basis, is there anyone who would never have experienced "mental health difficulties"? How will the researchers go about verifying the nature and severity of the mental difficulties and validating the diagnoses encompassed by "mental health difficulties"? Many people with more severe mental health difficulties will be reticent about volunteering for this type of research so it is very unlikely that the participants will be representative of the mental health difficulty spectrum – it will be very important that the researchers take this into account in interpreting their data.

Many thanks in advance and best wishes,

Will

Will Prentis
Administrative Support Officer
parkrun Research Board
will.prentis@parkrun.com

Appendix F – Recruitment advertisement

Mental health difficulties and experiences of parkrun

My name is Paul Morris and I am a doctoral student at Staffordshire and Keele Universities, studying for a Doctorate in Clinical Psychology.

I am currently conducting research into the experiences of parkrun of people who have experienced mental health difficulties. The aim of the research is to identify the impact that parkrun has on people with these experiences and to identify specific elements of parkrun which may be helpful or unhelpful to people's mental health.

Participants will be interviewed on a one to one basis to explore what experiences they have had. Interviews will be offered over telephone or skype, and as the research is based in the West Midlands participants from this region may be interviewed face to face. Interviews should last approximately thirty minutes to an hour.

To participate you must:

1. Be aged 18 or over.
2. Have participated in a minimum of ten parkruns as a runner or volunteer (combined).
3. Have experienced some form of mental health difficulty (at present or in the past) for which you have received some support. Support may have come from the NHS, the voluntary sector or private sector. You do not need to have received a diagnosis to participate.
4. Feel that your mental health will not be unduly impacted by your participation in an interview.

If you would be interested in participating and meet the inclusion criteria above, or if you have any questions about the project, please contact me for via e-mail M026520e@student.staffs.ac.uk.

Thank you for taking the time to read this.

Paul

Appendix G – Information sheet and consent form

Not just a run in the park: An exploration of the effects of parkrun on mental health

My name is Paul Morris. I am a Trainee Clinical Psychologist, and am conducting this research as part of my Doctorate in Clinical Psychology at Staffordshire and Keele Universities. Thank you for expressing an interest in this study. Please read through the information below, which includes further details of the research. If you have any questions at any point please ask. If after reading the information you decide that you would like to participate in the study, please complete the attached consent form. If you decide that you do not wish to participate in the study I would like to thank you for expressing an interest in my research and for the time you have given to considering participating.

Aims of research

The purpose of this study is to use parkrun participants' experience to identify what the impact of parkrun is on the mental health of people who have experienced mental health difficulties. The aim of this is to explore whether parkrun is helpful or unhelpful to people with either previous or ongoing mental health difficulties, and to see what aspects of parkrun specifically have been helpful or unhelpful.

Why have I been chosen?

You have identified yourself as someone who participates in parkrun, either as a runner or a volunteer, and you have also identified yourself as someone with an experience of mental health difficulties. In addition you have participated in at least ten parkruns (as a runner and/or a volunteer), and have accessed support for your mental health difficulties (For example from NHS services, mental health charities or private counselling). **If you do not meet this criteria please let the researcher know.**

Do I have to take part?

No. Should you agree to take part you do so as a volunteer and will be able to change your mind. You are able to end the interview or withdraw your contribution to this study at any point prior to the analysis of the **interview**, after which point it would be difficult to remove your data. You will be given a unique identification number which you can use to contact the researcher should you wish to withdraw your data from analysis. If you do wish to withdraw you do not need to give an explanation, and no questions will be asked.

What will happen if I take part?

If you decide to take part you will be invited to participate in a one to one interview with the researcher. The interview will be conducted at a campus of the Staffordshire or Keele Universities, if this is not convenient a more convenient location may be identified as appropriate. The interview may also be conducted by Skype or telephone. The interview which will take between 30 and 60 minutes to complete. You will be asked a series of

questions about your participation in parkrun and the impact that this has had on your mental health.

What are the benefits of taking part?

There are no direct benefits of taking part, but it is an opportunity for you to contribute your experience to the knowledge base about parkrun and mental health.

What are the risks of taking part?

As with any discussion around sensitive subject areas there is potential that the interview could be distressing. It is your choice whether you participate in this research or not and you should consider the emotional impact that this could have before agreeing to take part. If you feel that the interview could be unduly distressing you should not take part in the study. If you do feel that you are able to participate, but change your mind, that is fine. There are also contact numbers of support agencies at the bottom of this page which you can contact after the interview should you feel that you require any support. We also recommend contacting your GP or anyone that you are currently accessing support from should you feel that you need further support or advice.

What if there is a problem, and how do I make a complaint?

If there are any problems or you have any questions please contact the researcher, whose contact details are below. If you prefer, however you can contact Dr Helen Scott, who is based at Staffordshire University and is supervising the research project; Dr Scott's details are also listed below.

How will information about me be used?

The interview will be audio recorded and this recording will be transcribed by the interviewer, and examined to identify common themes in your responses and the responses of other participants. These findings will then be written up with the aim that it will eventually be published.

Recordings and transcripts will be kept in a locked filing cabinet and will only be available to members of the research team. All transcripts and published information will be anonymised (including parkrun events you attend). Parkrun will be given no notification or details of your participation.

All of the data collected during the study will be stored for five years, after which point it will be destroyed. This is in accordance with Staffordshire University policy.

Who will have access to information about me?

The researcher will be the only person who has access to your details. It may be necessary for other members of the research team to hear some of the recordings, but these will be anonymised (apart from any personal details you may disclose during the interview). No information that could identify you will be included in any published material.

Contact for further information

You can contact the researcher if you have any questions about the study.

After the conclusion of the study you have the option to receive a written summary of the findings of the research. If you wish to receive this please write an e-mail address in the appropriate place on the consent form.

If you have any questions about the study please ask.

Contact Details

Paul Morris (Principal Researcher)
M026520e@student.staffs.ac.uk

Dr Helen Scott (Research Supervisor)
h.scott@staffs.ac.uk

Useful contact numbers

Samaritans
24 hour telephone helpline
116 123
www.samaritans.org.uk

Mind Infoline
Nationwide mental health information service
Open Mon-Fri 9AM-6PM
0300 123 3393
www.mind.org.uk

Rethink
Support and advice for people living with mental health difficulties.
Open Mon-Fri 10AM-2PM
0300 5000 927
www.rethink.org

The Mental Health Foundation
Website providing information and support for anyone with mental health problems.
www.mentalhealth.org.uk

Participant Consent Form

Please Initial Box

1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions and have them answers satisfactorily. ☐

2. I agree to the use of anonymised quotes in publications. ☐

3. I agree to the interview being audio recorded. ☐

4. I understand that my participation is voluntary and that I am free to withdraw at any time, up to the time that my data has been analysed. I do not have to give any reason for this. ☐

5. I agree to take part in the above study. ☐

If you would like a copy of the summary of the findings of this study please write a suitable e-mail address below, if not please leave this line blank.

_____

Name of Participant	Date	Signature
Name of Researcher	Date	Signature

Demographic Details

Age ☐

Sex ☐

Number of parkrun's participated as a runner ☐

Number of parkrun's participated as a volunteer ☐

Appendix H – Semi-structured interview schedule

1. Can you tell me a little bit about your experience of parkrun?
    a. How did you first become aware of parkrun?
    b. How many times have you run/volunteered/do you attend one or multiple runs?
    c. Do you run alone or with people you know?
2. In what way (if any) has parkrun impacted upon your mental health?
    a. What sort of impact has this had?
    b. Has this had any impact upon your continued participation in parkrun?
3. Are there any aspects of parkrun that you find particularly helpful to your mental health?
    a. What about this has been helpful to your mental health? (eg. Running, volunteering, socialising etc)
4. Are there any aspects of parkrun that you find particularly unhelpful to your mental health?
    a. What about this has been unhelpful to your mental health? (eg. Running, volunteering, socialising etc)
    b. What is difficult about this aspect of parkrun?

Possible questions depending on content of interview

5. In your experience what is parkrun like for people with mental health difficulties?
6. Tell me about how much you considered the impact on your mental health when you started participating in parkrun?
    a. If so how important to you was this consideration?
7. Tell me about how important is the impact on your mental health to your continuing participation in parkrun?
8. What has your experience as a volunteer at parkrun been like? (if they have this experience)
9. Does the impact upon your mental health differ at different parkruns? (if they have this experience)
    a. If so what do you think makes this difference?

Appendix I – Participant debrief sheet

Thank you for your participation in this study.

The study was an exploration of the experiences of people with experience of mental health difficulties who participate in parkrun. The purpose of this study is to ascertain the impact that parkrun has had on people's mental health.

There has been research that has demonstrated that various features of parkrun have had a positive impact on people's mental health. For example research has demonstrated that exercise, as well as being good for physical health, can have a benefit for people with mental health difficulties. However as parkrun is not just about exercise there are many other elements of parkrun which may have had an impact. For example, volunteering has been shown to be helpful for people with mental health difficulties as has projects which promote social inclusion. Although there has been research into these individual areas there has been no published research looking specifically at parkrun and how it impacts mental health. Of course there may be other elements which have had more of an impact than these, and there may also be ways that parkrun has been detrimental to people's mental health. As this is the first study looking specifically at this, we wanted to draw upon the experience of parkrun participants to explore exactly how it has affected people's mental health.

Your participation in this study has contributed to the growing research base around parkrun. It has also contributed to the knowledge base around community projects, social inclusion, volunteering and exercise. The findings of this research will help us understand further the benefits of such initiatives for people with mental health difficulties.

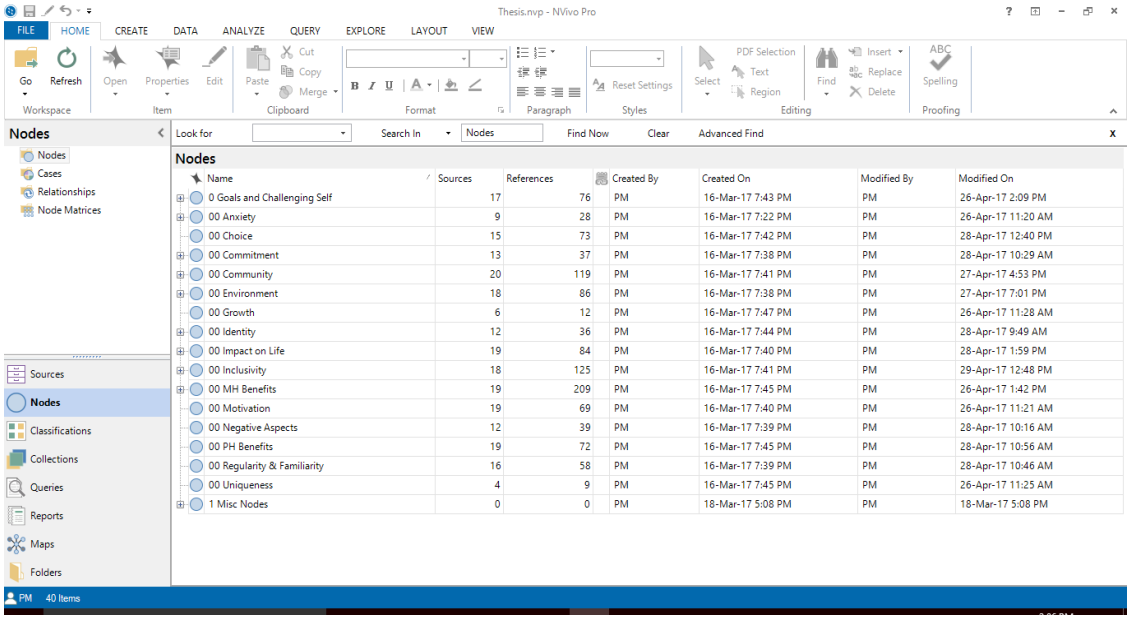
Please contact me at the following e-mail address m026520e@student.staffs.ac.uk if you have any questions about the study.

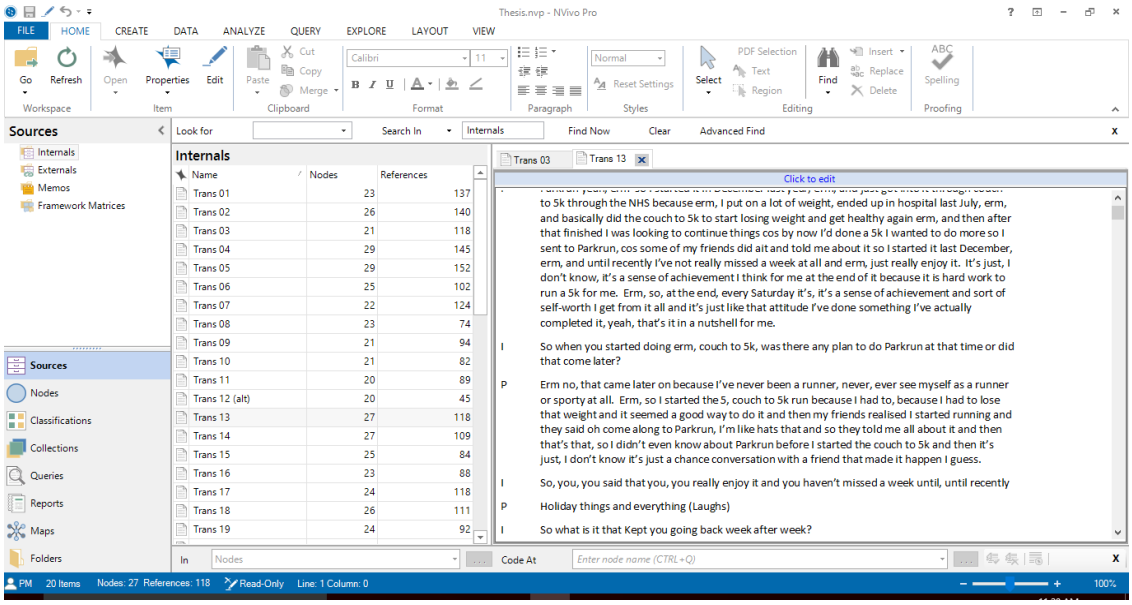
If you have any concerns about the study please contact my supervisor at helen.scott@staffs.ac.uk.

Or if you have any concerns about your mental health please contact one of the organisations on the useful contact numbers sheet, your GP or any professionals involved in supporting you at present.

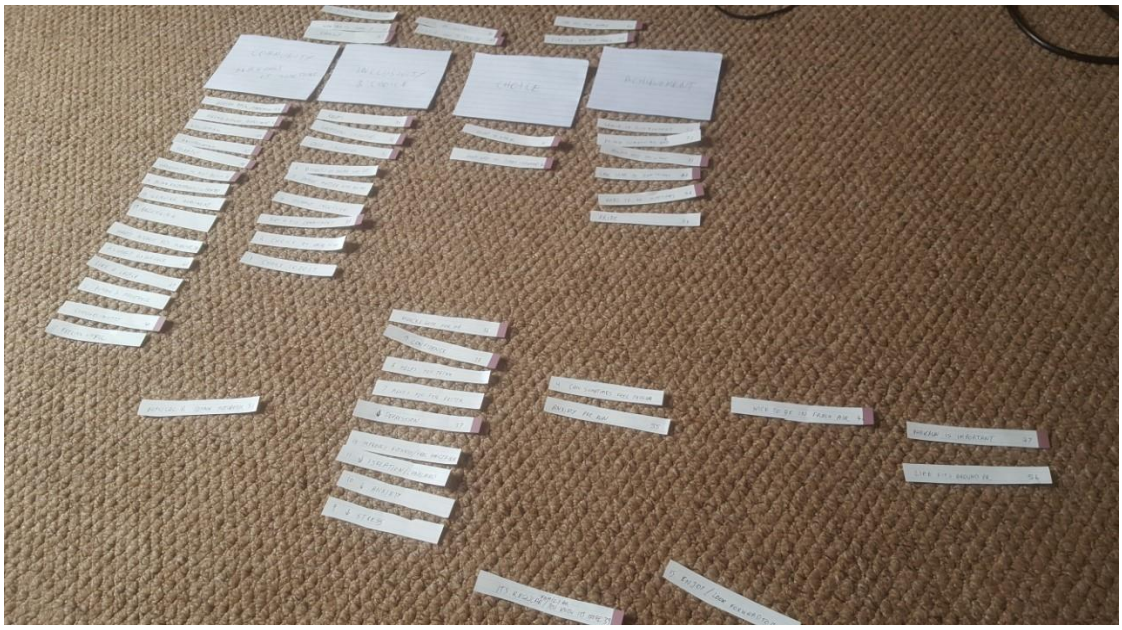
Again, thank you for your participation.

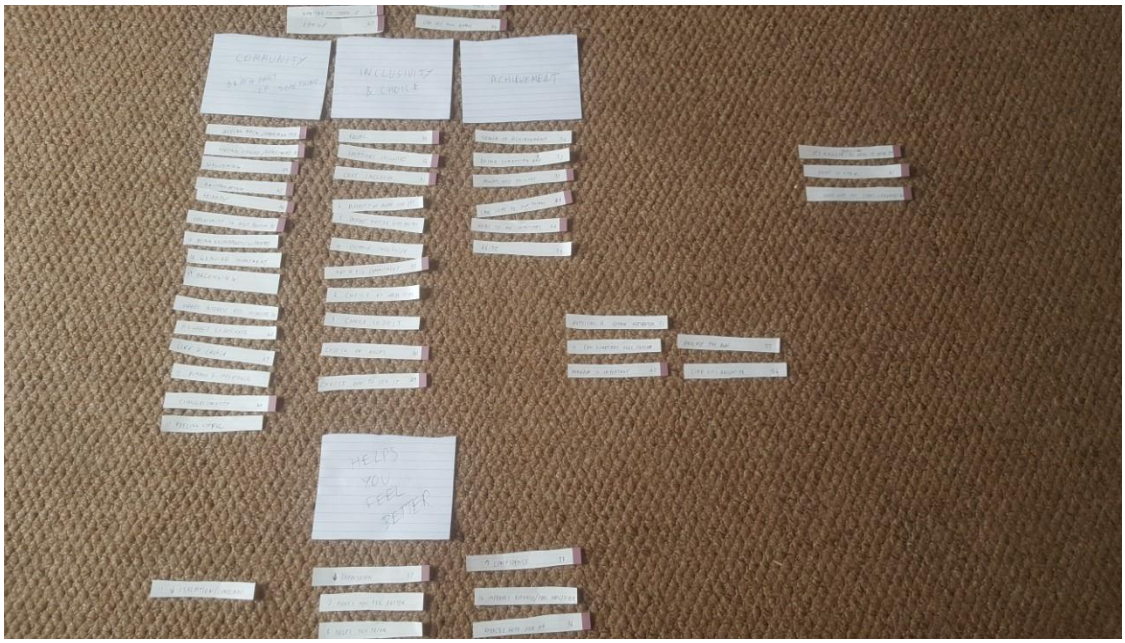
Appendix J – Example of coding process using NVivo 11





Appendix K – Examples of theme development process





Appendix L – Extract from Transcript 11, Lines 344-371

I Ok are there any aspects or elements of Parkrun that you think have been unhelpful at all to your mental health?

P None. No, I can't think of a single thing. I know some people are quite nervous of running with a lot of people, especially when they're not what they consider good **(Anxiety before starting)**. I'm trying to get some friends, and they're all like no, no everyone will see me and I'm like, seriously they won't **(Encouragement)**, and you'll be twice as fast as me anyway and I know some people feel insecure about running with others, but I've only found it positive, so no, nothing negative at all **(parkrun as a positive thing)**.

I So you've heard other people have had those worries about running around other people?

P And I wasn't sure how I felt about that myself when I first started doing it **(Apprehension before starting)**. I was happy going out by myself and I didn't mind who saw me running about the park, I didn't care, but then it did feel a bit, I did feel like it would be a bit different. Would they look down on me **(Anxiety before starting)** but it's been so the opposite to that, that from the first race that was never a concern again **(Atmosphere of parkrun reducing anxiety) (Negatives as minor/insignificant).**

I Ok so you recognised some of those apprehensions yourself from before you started, but once you started going there wasn't, there wasn't any of that and there wasn't any…

P No, yeah exactly

I Ok

P Just so welcoming to everyone at every level **(Encouragement)**.

I Ok, I mean is there anything other, other than obviously, the physical aspect of it that you find difficult at all?

P Er…they had to change the finish line

I Ok

P Cos some other groups were using the pitches where we used to sort of go off through the park, we used to turn left and there was quite a long run in and now we turn off to the right and it's like 5 metres on grass before we reach the finish line.

I Ok

P That would be the smallest I could…the only thing. I preferred the old finish line, I think everyone preferred the old finish line but we work with what we've got, it's not tainted it at all **(Minor complaint).**