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Review Article

The Psychosocial Consequences of Sports Participation for Individuals with Severe Mental Illness: A Metasynthesis Review

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The purpose of the current metasynthesis review was to explore the psychosocial benefits of sport and psychosocial factors which impact on sports participation for individuals with severe mental illness. AMED, CINAHL Plus, Medline, EMBASE, ProQuest Nursing & Allied Health Source, and Science Citation Index were searched from inception until January 2014. Articles included use qualitative methods to examine the psychosocial effects of sports participation in people with severe mental illness. Methodological quality was assessed using the Consolidated Criteria for Reporting Qualitative Studies and a case study tool. Included studies were analysed within a metasynthesis approach. Eight articles involving 56 patients met the inclusion criteria. The results identified the broader and direct psychosocial benefits of sport. Sport provided a "normal" environment and interactions that were not associated with an individual's mental illness. Sport provided individuals with a sense of meaning, purpose, belonging, identity, and achievement. Other findings are discussed. Direct psychosocial benefits are a consequence of sports participation for the vast majority of individuals with severe mental illness. Further to this, sports participation was associated with a reduction in social isolation and an increase in social confidence, autonomy, and independence.

1. Introduction

The Council of Europe [1] defines the term sports participation as all forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and mental wellbeing, forming social relationships or obtaining results in competitions at all levels. Within the context of physical activity, sport is considered a particular type of leisure time physical activity [2]. Sports participation may be one way in which individuals with severe mental illness can achieve the current physical activity recommendations [3] and it is very likely, based on literature from other populations, that the participation itself has biopsychosocial benefits [4–6]. These benefits are important when considering the physical [7] and social [8] health disparity between individuals with severe mental illness and the general population.

It is important to recognise that the benefits of physical activity are most often derived from research that has focused on the effects of exercise therapy. In contrast to sport, exercise therapy is physical activity that is repetitive, structured, and planned and is able to improve or maintain one or more components of physical fitness [9]. Thus, understanding the direct benefits of sports participation would be extremely useful. A previous review [10] has suggested that sports participation can have a positive effect on several psychosocial domains that relate to an individuals mental health, including self-esteem, body awareness, social interaction, and ability to organise time and undertake physical activity. A recent qualitative metaethnographic review [11] has highlighted

the postive impact exercise therapy has on several important psychosocial domains, including, but not limited to, an individual's autonomy and athletic identity; however, this research did not establish the broader direct benefits (benefits that were generic and could assist social engagement, interaction, or behaviour in other settings and contexts) on other aspects of the individuals life. Recently, research [12] conidering the views of indivduals with schizophrenia has identified broader psychosocial benefits of undertaking phyical activity. These include self-initiated positive changes in behaviour and increased confidence in other settings, having a sense of purpose and meaning and providing a sense of achievement, pride, and confidence. Further direct benefits included a sense of belonging, cohesion, and support from similar others. These findings require further consideration. Within previous sports reviews, the potential social value of sport has been considered by Langle et al. [10] who identified that sports participation can benefit self-esteem and social interactions. Given the above findings, it is reasonable to assume that sports participation may have a direct and broader social benefit for individuals with severe mental illness. For instance, it may be that sports participation can increase self- and social-confidence, which are both important factors that are assoicated with improvements in an individual's mental health [13]. However, further research is required to establish this.

Aims of the Study. The aim of the present study is to conduct a metasynthesis review to explore the broader psychosocial benefits of sport particpation for individuals with severe mental illness.

2. Methods

A metasynthesis [14] (a particular review technique, which was used in order to synthesise qualitative data) was undertaken and is reported in 3 phases [12]: (1) a systematic search of the literature, (2) a critical appraisal of identified studies, and (3) a synthesis of research to reveal overarching and emerging themes regarding the broader psychosocial value of sport for individuals with severe mental illness.

2.1. Phase 1: Systematic Search. A systematic search of major electronic databases was conducted from inception until January 2014 including AMED, CINAHL Plus, Medline EMBASE, ProQuest Nursing & Allied Health Source, and Science Citation Index. The key search terms included sport OR exercise OR physical activity OR training AND schizophrenia OR severe mental illness OR bipolar disorder OR schizoaffective disorder AND qualitative OR ethnography OR phenomenology OR grounded theory OR case study OR case series. In addition, we conducted hand searching of the included articles' reference lists.

2.1.1. Eligibility Criteria. Articles were eligible if (1) they included individuals with a diagnosis that fell within the range of severe and enduring mental health problems including individuals with schizophrenia, bipolar disorder, and schizo-affective disorder (DSM-V, ICD-10). The classification of severe mental illness is defined by other features in addition to the diagnosis [15, 16], these include the need for formal and informal care, the impaired ability to cope on a daily basis, an extended period of time with the illness (>6 months), and finally the need to consider safety for the individual (intentional/unintentional self-harm, abuse from others, and safety for others), (2) the research utilised qualitative methods, (3) the study reported the views, perceptions, or experiences of sports participation, and (4) the research was published in English. Articles were excluded if (1) they were presented as stories or (2) if they were presented commentaries which did not provide any analysis or did not consider taking part in sport.

2.1.2. Study Selection Process and Data Extraction. Two authors (AS/DV) screened the titles and abstracts of all identified articles. A paper was included when it was considered that it satisfied all eligibility criteria.

2.2. Phase 2: Critical Appraisal of the Included Studies. In order to assess the quality of included qualitative articles, we used the Consolidated Criteria for Reporting Qualitative Studies (COREQ) [17]. The COREQ provides clear guidelines to enable a gold standard approach in reporting qualitative studies. We report a summary score from each of the three COREQ domains, as well as a total score. The score is based on each question either being reported correctly (scoring a point) or not (scoring no point), with a maximum possible score of 32. Domain 1 entitled "the research team and reflexivity" is split into two areas of assessment, first, the personal characteristics of the research team which may impact on the researchers observations and interpretations, and second, the relationship established, or the interactions with the participants under investigation. Domain 2 entitled "study design" is split into four areas of assessment and includes the theoretical framework used, how the participants were selected, the chosen setting with contextual details, and how the data was collected, recorded, and transcribed. Domain 3 entitled "study design, and analysis and findings" considers two areas of assessment including identifying the process undertaken for data analysis, method of triangulation, and validation processes. Second, this domain considers how the reporting is undertaken, considering the consistency in reporting findings, consideration to major and minor themes.

In order to assess the quality of nonqualitative articles we used criteria established by Crombie [18]. We created a 10-question assessment tool which was based on questions proposed by the author. The tick box scoring system for this tool was utilised as answers to the proposed questions, the answers included "yes," "no," or unsure. For example "Is the researcher's perspective clearly described and taken into account?" When an answer of no was recorded, a comments box was provided to detail why.

2.3. Phase 3: The Synthesis. Thematic line-by-line coding was undertaken using participants' quotes and authors' comments [14]. Themes were then rearranged and streamlined.

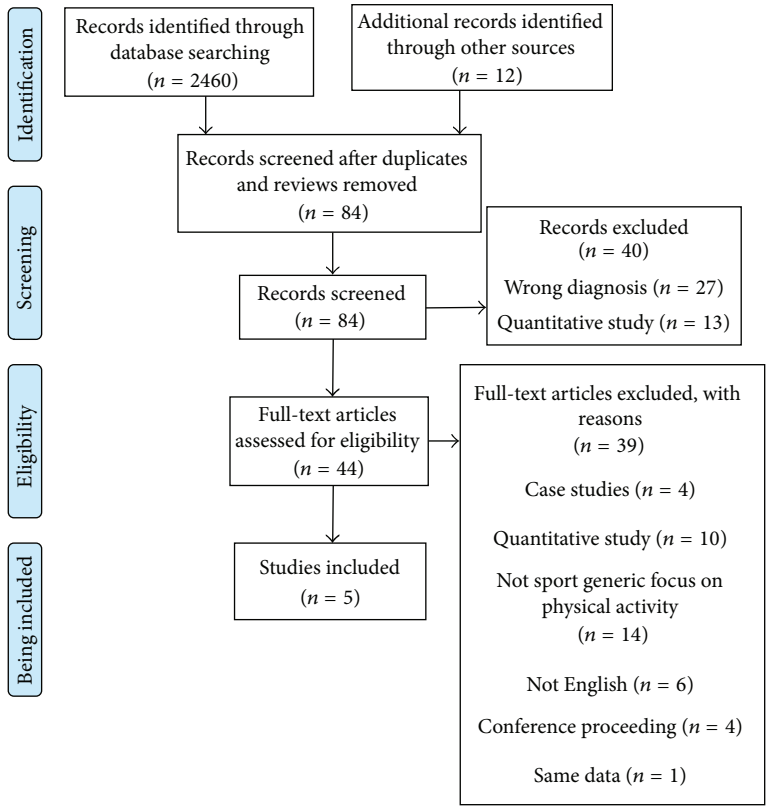

Figure 1: A PRISMA diagram for the study. Adapted from Moher et al. [27]. For more information, visit http://www.prisma-statement.org/.

An audit trail of the thematic development is available from the primary author.

3. Results

3.1. The Systematic Search. Eight articles [19–26] met the inclusion criteria. Figure 1 provides the results of the search using a traditional review flow diagram [27]. The eight articles included 56 individuals (39 male, 2 female, and 15 not identified). Table 1 provides the summary characteristics of the included studies.

3.2. Critical Appraisal of the Studies. No studies that were assessed using the COREQ ($n = 5$) had data that was considered as flawed for the purposes of the metasynthesis analysis [28]. Thus, all five studies were included in the synthesis. Across studies the weakest of the three domains assessed was details regarding the study designs. The study by Iancu et al. [23] had the lowest score. However, the available data was considered to be authentic and usable within the synthesis. Table 2 provides a summary of COREQ scores. Three studies [24–26] were assessed using the alternative appraisal form. Only one study [23] was considered unclear in some several domains, including the researcher's perspective, the methods for data collection and analysis, and if more than one researcher took part in this analysis.

3.3. The Synthesis. Four themes and 18 subthemes were identified. The themes were (1) the social meaning of sport in the lives of patients and what it represents in participants' lives, (2) the direct benefits of sport, (3) the organisation, processes, and challenges of the sports activity, and (4) the use of functional social support. Indicative quotes from first order and second order interpretations are available from the primary author. Supplementary File A (see Supplementary Material available online at http://dx.doi.org/10.1155/2015/261642) provides a full thematic breakdown and Supplementary File B provides the translational benefits of sports model.

3.3.1. The Social Meaning of Sport in the Lives of Patients. Three subthemes were generated from this theme: (1) a positive social experience to look forward to, be part of, and reflect about, (2) feeling part of a community and creating a positive identity, and (3) an activity that promoted autonomous behaviour and social engagement.

The sporting activities seemed to generate enthusiasm among the patients before and after the activity [19, 21, 23]. This could represent a positive topic of conversation and through this means served to promote sport to peers within the mental health setting. In contrast to this, one study [22] identified that users could find difficulty in the effort required to undertake the activity and be tired following the activity. The second theme detailed the social aspects of the sporting experience. These included that sport meant

Table 1: The study characteristics of the included studies.

Study	Design	Participants	Assessment, Intervention and setting	Outcome measures	Main results
Carless and Douglas (2004) [19]	Case study design within an ideographic approach	9 ♂ with severe and enduring mental illness	9-week Golf Project Mental health staff was involved in recruiting and publicising the group before study starting. Tangible support was provided including: free transport, entry, equipment and tea, coffee, and biscuits. Also "some" were telephoned before session as a reminder. The golf project was planned by the second author (a PGA golf coach). A staged approach across 9 weeks was undertaken: (1) social meeting in the café centre with indoor putting instruction and a game, (2) two introductory sessions within the driving range, (3) a supported par 3 course session, (4) a third driving range session, (5) two supported sessions on the par 3 course, (6) two free play sessions on the par 3 course.	Focused themes around attendance considering factors that threatened attendance (competition, crossing the bridge, Texas scramble, and time to move on) and factors which encouraged attendance (doing something normal, a safety net, bubbling about golf, a relaxing sport, and caring golf).	Money and transport barriers to autonomous play. A transfer of responsibility occurred and autonomy increased across time. Enthusiasm was demonstrated about golf. The low intensity nature of the sport was valuable. A caring environment and atmosphere was valued. It was important to do something normal.
Clark et al. (1991) [20]	Phenomenological approach	8 ♂ patients with schizophrenia Age range 19–42	5-day white water canoe trip in Northern Ontario. Support team included occupational therapist, nurse, and 5 skilled canoe instructors. Days 1-2 2 days for training canoeing strokes, river morphology, camping skills, and safety way to fall into the rapids. Days 2–5 Canoeing down river, camping, and working as a group Semi-interviews were 1-hour long >6 months after experience.	Questions from interviews on critical incidents, interactions with others, emotional experiences, and self-perceptions.	Benefits in three broad categories: the experience of pleasure, belonging, and ability to talk. Challenging activity provided accomplishment and pride. Positive emotions, fun excitement, and fear also. Normalising activity for interactions between staff and patients.
Carter-Morris and Faulkner (2003) [21]	Phenomenological approach	5 (♂ = 4) 3 individuals with schizophrenia. 1 with manic depression and 1 with chronic anxiety.	Interviewing participants who had become part of a football team for individuals with severe and enduring mental illness. Team trained "regularly". Involved in national tournaments and took part in "Pallastrad" in Italy = team travelled to Italy and participated in football and other sporting events with mental health services users across Europe.	Questions from interview schedule not identified.	Project as a normalising activity and meaningful experience. Importance of accessing a positive identity. Activity benefited positive symptoms. Barriers to participation associated with medication.
Crone and Guy (2008) [22]	Grounded theory approach Using focus groups	11 individuals (♂ = 10) with severe mental health problems	Sports therapy that was undertaken within an NHS trust for a period between 2 months and 4 years. Twice weekly sessions were available including outpatient and inpatient. Sessions included mainly badminton and the fitness gym.	Topics in focus groups included motivations for participation, experiences, perceptions on the role of sports therapy, and their perceived benefits from participation.	Themes included Taking part in that there was value in doing something rather than nothing. Reasons for participation: biopsychosocial reasons were given. Attitudes and opinions: the term therapy was not well liked. Perceived role of sports therapy: it was considered as beneficial on mental health symptoms. Factors affecting participation: classic motivation barriers are noted. Perceived benefits are noted on self-esteem, accomplishment, feeling positive, and being more mentally altert. Improvements for the future: participants identified changes to the program that may be beneficial.
Iancu et al. (2004) [23]	Case studies	8 ♂ with schizophrenia	Inpatient table tennis tournament was organised with tangible rewards including trophies, sport shirts and two hats. 4 therapists assisted in the doubles tournaments. Matches were 1 set up to 21 points.	Vignettes of the experience of three patients considered.	When enjoyed and successful, provides a sense of achievement and focus. Potential to cause negative emotions because of losing or being fearful of the experience.

Table 2: The summary of correctly scored domains of the COREQ (Tong et al., 2007 [17]) appraisal for the 4 included studies.

Author/year of publication	Domain 1 (/8) Research team and reflexivity	Domain 2 (/15) Study design	Domain 3 (9) Analysis and findings	Total (/32)
Clark et al. (1991) [20]	3	8	4	15/32
Carter-Morris and Faulkner (2003) [21]	7	9	6	24/32
Carless and Douglas (2004) [19]	7	11	6	24/32
Crone and Guy (2008) [22]	7	10	8	25/32
Iancu et al. (2004) [23]	4	6	2	12/32
Mean	5.6	8.8	5.2	20
Median	7	9	6	24

being part of a group and receiving an identity from that [20, 21, 24, 25], having a social interest which gave meaning [19–22], providing a topic of conversation which was different and interesting, for instance, being able to reflect on a task that was overcome, failed, or was achieved. More generally sport required individuals to undertake a social learning experience [20], which extended and enhanced their social network. Individuals demonstrated increases in social confidence [19–22], greater social skills [23], and a decrease in social withdrawal from experiencing a new social world [21]. This particular subtheme also represents a direct benefit of sport; however, it should be noted that one patient [25] stated it had not changed them as a person or impacted on their identity. The final subtheme identified that, through engaging in sport, individuals became more autonomous and had developed or enhanced their ability for social engagement. The development of autonomy was, in part, due to sport representing a challenge [20] that was overcome, by participants just by undertaking and enjoying the experience [22], and providing individuals with a sense of belief in themselves.

3.3.2. The Direct Benefits of Sport. Five subthemes are reported within this theme: (1) an activity that provided meaning and purpose, (2) undertaking a normalised activity, (3) the benefit of sport serving as a distraction, (4) achievement accomplishment and pride, and (5) feelings and emotions generated by the sports.

The first benefit identified by patients was that sport provided individuals with somewhere to go and something to do [19, 22]. This in essence means patients can feel they have a sense of purpose and have access to meaningful and valuable social experiences [24]; this is because sports can be highly valued by patients [25].

The second subtheme, undertaking a normalised activity, was represented by four major reasons. First, sport provided an opportunity to be someone within a positive group and provided a positive sense of identity [19, 21]. Second, interactions within the sporting environment were often different as conversation was represented by what the participants were doing rather than focusing on their mental illness or problems [21]. Third, sport was often associated with a normal trip with excitement and pleasure [22] or getting back to what was perceived as normal for the patient [25, 26]. It should be noted that patients in one study empathised the detachment from the medical system within this as a benefit [19]. Finally, it represented a social learning opportunity as it could help break down perceptual biases. As one patient from the study by Carter-Morris and Faulkner [21] stated "*it breaks down barriers and builds bridges.*"

The third subtheme identified that sport served as a distraction from individuals' typical worries, anxieties, or mental health symptoms [21, 22, 24]. The fourth subtheme illustrated the importance of accomplishing a task, which acted as a source of pride for individuals and the social network within the activity acted to support that achievement [19, 20, 22]. This included the ability to successfully complete the activity [25, 26]. The fifth subtheme highlighted the different emotions evoked by sports participation. Often this was centred on positive feelings such as fun [26], but also other feelings like being more positive or having more positive thoughts after the activity, for example, running [24]. However, emotions such as fear or apprehension were also reported. These were observed in different ways and were in a response to competitive situation [19]. For instance, Iancu et al. [23] noted an apprehension of the ability of others, whilst Clark et al. [20] identified the fear as well as excitement about the danger level of the activity. Finally, some participants noted that sport could be a way of releasing negative emotions such as anger or frustration.

3.3.3. The Organisation, Process, and Challenges of the Sports Programme. Three subthemes were identified within this theme: (1) the organisation and content of the sports programme, (2) the supported environment and atmosphere, and (3) challenges presented by the sport.

The first subtheme regarding the organisation of the sport identified the importance of how the sport was marketed and promoted by the researchers and health care professionals before the activity began [19, 22, 23]. Further to this, Carless and Douglas [19] highlighted the importance of progression of the task difficulty and the use of supported competition as an important aid to the initial experience. The second subtheme identified the importance of the environment and the need to use the sport to foster a sense of belonging, identity, and interaction [19, 21, 22, 24–26]. The final subtheme included the importance of individual considerations around sport which need to be known in order to foster participation. These included the importance of a holistic approach by staff [22], understanding the effects medication can have

on individuals [21], being aware of incidences (perceptual and interactional) during the sport that may prevent further attendance [19], and finally responding to needs in order to help a situation [23].

3.3.4. The Use of Functional Social Support. This theme was organised into four preexisting dimensions of social support [29]: (1) esteem, (2), emotional, (3) informational, and (4) tangible.

The importance of esteem support was recognised across all studies as a valuable facilitator of engagement, particularly when provided by the staff involved with sport. This included encouragement, as well as positive feedback about performance and accomplishments. In turn, participants learnt to provide each other with esteem support as well. Emotional support was the most specifically mentioned theme with specific techniques employed in order to help participants. Staff were required to be empathic towards the barriers faced by users [21]; this required individuals to be sensitive towards users in how they spoke to them and to take a real interest in their lives and be known by them [22]. Where a spirit of camaraderie between all could be generated, it provided positive effects for the users [20]. A further aspect of emotional support came from peers; in that it was positive for users to feel related to others [20, 22] and want others to do well [19], being willing to contact peers in order to support them to attend [22] or having a place where the patient felt being able to talk about worries in their life [25]. There was less evidence regarding informational support, but it was considered important for technical skills in golf and canoeing [19, 20] and it was clearly apparent in the strategies used within all studies to promote initial participation in sport. In one study, a patient cites a primary reason for undertaking the activity was due to a physiotherapist recommending that he should get fitter [25]. Finally, tangible support was dominated by the importance of cost, including cost of travel and participation in the activity [19, 22]. Tangible rewards were also utilised by Iancu et al. [23] in the form of prizes.

4. Discussion

The current results illustrate that sport can play a valuable role in helping individuals overcome the debilitating effects of social isolation. Participation in sport can assist individuals with severe mental illness in gaining social confidence by providing individuals with positive experiences and enabling them to become more independent and autonomous. Importantly, participation in sport provides individuals with access to an activity which provides a sense of meaning, purpose, and achievement in their lives, it gives access to more "normal" interactions, and it distracts from more negative thoughts and can create positive emotions and feelings. To generate a positive experience it is important that the sport is promoted before it starts and provides an environment which fosters support and an activity that has a progression in difficulty to enable positive experiences, assisted by their peers. Further, it is clear that the different dimensions of functional support are highly valuable and require consideration. A summary of the direct benefits of sports participation has been included in a model generated from these results and can be obtained from the primary author.

4.1. The Importance of the Social Environment. Sports and physical activity programmes for individuals with severe mental illness are frequently set up using social support as a core strategy to enhance engagement and adherence to physical activity. Key elements of support are recognised including the importance of the group leader [30] and supportive staff across the health care team [31] who are able to provide esteem and emotional support. The current study supports these positions but also identified the importance of the group dynamics and individuals feeling connected or a sense of belonging to a group, which was generated through peer support generated within the activity. Good examples of this can be seen in other physical activity interventions, for example, [32–34]. It is worth noting that peer led interventions are currently rarely used in individuals with severe mental illness [35]. Although it has been recognised, that act of support from peers and practitioners may be an essential part of promoting and sustaining the self-esteem of individuals, as well as creating a perception of control over their environment [13].

Different aspects of the environment and culture influenced the participants' physical activity behaviour. For instance, both a competitive and noncompetitive environment were reported as positive factors that could increase participant [19, 23]. By varying the competitive environments, it may be possible to influence attendance and enjoyment of the sport, although the reactions to this approach may be highly individual. An interesting finding from the study by Ginis and colleagues [35] was that the fear and excitement of activities with a danger element may distract individuals from negative thoughts and encourage a focus purely on the activity at hand. This in turn may have a positive influence on the experience of the sport and be positively identified in social discourse following the sport.

4.2. The Processes of Social Change Explored. Mental health care programmes are needed which are designed to combat social isolation and develop social contact and community integration [8]. One reason for this is because establishing a good social network is an important aspect in recovery for mental illness [36]. The current results identify that sport can provide positive opportunities for social engagement. Perhaps the most central processes by which direct social benefits are gained is through social learning experiences, the opportunity to feel "normal," and access to new and different social discourses that have a "distance" from institutionalised settings and identities. Important aspects which make this possible are the physical location and environment where the activity takes places, the culture of that environment, and the unity and collective identity between different members who attend the sports activity [11]. Importantly, it is possible that the sport environment provided normative and behavioural guidance [13] by individuals within the sport setting by modelling values and beliefs which are positive regarding exercise, interactions, and behaviours.

It is evident from research literature that individuals with severe mental illness are vulnerable to social and cognitive biases [16]. One important role of sports may be to provide an environment where the effects of such perceptions are minimised and with further successful experiences individuals are able to engage in a greater range of activities. Once individuals are embedded within a sporting activity, it is possible that they can assume positive roles, for instance, organising the activity, which can facilitate autonomy and self-belief.

4.3. Limitations. Several limitations must be acknowledged; primarily, this research was restricted to a small number of sports activity and a small sample size. The analysis was focused on the social benefits and does not consider the physical benefits. Further, the primary author may have restricted the analysis by his theoretical position or limited understanding of previous literature.

Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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