

Experiences and strategies influencing older adults to continue playing walking football

CHOLERTON, Rachel, QUIRK, Helen <<http://orcid.org/0000-0003-2716-4681>>, BRECKON, Jeff <<http://orcid.org/0000-0003-4911-9814>> and BUTT, Joanne <<http://orcid.org/0000-0002-0477-894X>>

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1 Experiences and strategies influencing older adults to continue playing walking football

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Ms. Rachel Cholerton,

4

College of Health, Wellbeing and Life Sciences, Sheffield Hallam University

5

Dr. Helen Quirk

6

School of Health and Related Research, University of Sheffield

7

Prof. Jeff Breckon

8

College of Health, Wellbeing and Life Sciences, Sheffield Hallam University

9

Prof. Joanne Butt

10

School of Sport and Exercise Sciences, Liverpool John Moores University

11

12

Author Note

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Rachel Cholerton, College of Health, Wellbeing and Life Sciences, Sheffield Hallam

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University, United Kingdom.

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Correspondence concerning this article should be addressed to Rachel Cholerton,

21

Sheffield Hallam University, Collegiate Crescent, Sheffield, United Kingdom, S10 2BP

22

Contact: R.Cholerton@shu.ac.uk Tel: 07809 758 605

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4

5 **Abstract**

6 Adults aged 55+ are most likely to be inactive, despite research suggesting older adults
7 experience multiple benefits when participating in physical activity and sport. Limited
8 research focuses on long-term continuation of sport participation in this population,
9 especially in 'adapted sports' like walking football. This study explored experiences of
10 walking football maintenance in 55- to 75- year-old players. Semi-structured interviews were
11 conducted with 17 older adults maintaining walking football play over six months. Inductive
12 analysis revealed five higher-order themes representing maintenance influences, and two
13 higher-order themes relating to maintenance mechanisms (i.e., the conscious process by
14 which players maintain). Influences when maintaining walking football included individual-
15 level and culture-level influences (e.g. perceived benefits of maintenance and ability
16 acceptance). Maintenance mechanisms included cognitions and behaviours (e.g., scheduling
17 sessions and redefining physical activity expectations). Findings highlight novel implications
18 for policy and practice, which are important to consider when delivering walking football to
19 older adults.

20 *Keywords:* older adults, football, soccer, behaviour change, maintenance, qualitative
21 methods, interviews

22

Literature Review

1
2 Within the United Kingdom (UK), adults reaching 65 years and older are expected to reach a
3 quarter of the population by 2046 (Randall, 2017). It has been reported that 2.8 million
4 people aged over 65 years will need nursing and social care by as soon as 2025. This
5 subsequently suggests the need for a considerable increase in funding to provide care needs,
6 and poor health markers having an increased impact on public health services in the United
7 Kingdom (Guzman-Castillo et al., 2017). It has been suggested that physical activity (PA)
8 can improve physiological markers and provide a lower risk of all-cause mortality (Rezende
9 et al., 2014), alongside potential psychological benefits in older adulthood, such as increased
10 memory performance (Chapman et al., 2013). However, reports by sporting bodies such as
11 Sport England suggest that older adults are less likely to be active, with 42% of those over
12 the age of 55 leading inactive or sedentary lives, compared with 29% of the general
13 population (Sport England, 2018). **Additionally, it has been reported that older adults struggle**
14 **to maintain moderate to vigorous PA after completing a 24-week program** (Kendrick et al.,
15 2018). **Research therefore needs to consider how to encourage long-term participation in**
16 **groups who are the least likely to continue participation over time.** Research in older adults
17 has found environmental barriers to PA (e.g., access to facilities) links to lower PA levels in
18 those with lower socioeconomic status (SES), alongside individual barriers such as health
19 concerns (Franco et al., 2015; Stalsberg & Pedersen, 2018). Therefore, finding ways to
20 engage adults in activity as they reach later life is important to increase physical and mental
21 health markers, reduce care needs and improve overall health-related quality of life (McPhee
22 et al., 2016).

23 Sport participation in older adulthood is an alternative option to conventional forms of
24 PA advertised to older adults, such as brisk walking, water aerobics or dancing (National
25 Health Service, 2019). Sport participation or 'SP' is defined by Gayman and colleagues

1 (2017) as “activities which involve training or competition with some level of physical
2 intensity or organisation” (p.175). Research suggests many physical and psychological
3 benefits to SP in older adulthood, for example, reports of less sedentary time, increased
4 cognitive flexibility, and acceptance of aging processes (Gard et al., 2017; Gayman et al.,
5 2017; Heo et al., 2013; Pesce & Audiffren, 2011). Nonetheless, SP sees the biggest decline
6 over the life span and has been found to progressively decline compared with other activities,
7 such as walking for health (McPhee et al., 2016). Similar patterns of SP have also been seen
8 in other countries, where sport participation declines with increasing age (Eime et al., 2016).
9 To help understand how to offset the decline in SP in older adulthood, research within the
10 field of behavioural psychology has begun to explore the determinants and barriers associated
11 with SP. Studies have found multiple factors related to participation in sport, including
12 previous sporting experience, physical health state and accessibility to sporting facilities
13 (Jenkin et al., 2017). Notable barriers to SP include a lack of sporting opportunities for those
14 reaching older age, and a lack of awareness about available sport programs for older
15 populations (Jenkin et al., 2018). Research exploring how best to increase levels of inclusive
16 sport and appropriate playing opportunities for older adults is needed (Jenkin et al., 2018).

17 Adapted sports are defined as activities that are directed at those “who require
18 adaptation for participation in the context of physical activity” (Carlier et al., 2016, p.351).
19 Mainstream sports that have a level of adaptation, such as handicapping within golf, have
20 been highlighted in previous research as providing a means for older adults to stay involved
21 in sports as they age (Stenner et al., 2016). Approximately 40,000 people across the UK are
22 estimated to take part in walking football, an example of an adapted sport (Lloyd, 2019).
23 Further research is starting to uncover the psychological and physiological benefits that are
24 seen when playing such sports in older age. A recent report exploring the benefits of another
25 walking sport, walking basketball, highlighted the importance of competition for the

1 participants' enjoyment of the sport, alongside modifications to the sport to suit player
2 capabilities (Jenkin et al., 2018). Research has started to explore physical benefits arising
3 from walking football, for example significant reductions in body fat and time to volitional
4 exhaustion (Arnold et al., 2015), alongside psychological aspects such as enjoyment and
5 forming new social connections (Reddy et al., 2017). The availability and choice of walking
6 football sessions, and the acceptance of all ability levels (regardless of injury or health
7 conditions) were also reported by participants as contributing influences when initiating
8 walking football in the first six months of play (Cholerton et al., 2020). Conversely, negative
9 experiences were also reported, relating to injuries or health conditions preventing play, and
10 the experiences of wider football culture, especially in the availability and promotion of
11 women's walking football (Cholerton et al., 2020). Collectively, research to date has
12 highlighted the positive potential of walking football for older adults, but less is known about
13 experiences of older adults considered to be continuing, or 'maintaining' a sport, especially
14 adapted sports, such as walking football.

15 Maintenance of a health behaviour has been defined as a “sustained behavior during
16 the period of observation that meets a threshold believed to be necessary to improve health or
17 wellbeing within a given population” (Seymour et al., 2010, p.667). The concept of
18 maintenance was first introduced in theories such as self-determination theory (SDT) and
19 social cognitive theory (Bandura, 1977; Ryan & Deci, 2000), preceding later theories
20 concerning maintenance. Later theories include the Model of Behaviour Maintenance and
21 Habit Formation (Rothman, 2000; Rothman et al., 2009; Lally & Gardner, 2013), where
22 maintenance is driven by the satisfaction of the behaviour change created during initiation,
23 through reflective processes such as comparisons and shifting expectations, and automatic
24 ‘habit’ forming processes such as repeated performance of ‘healthful responses’. Despite a
25 large body of research focusing on maintenance of health behaviours, many theories were not

1 intended to focus on PA behaviour change specifically, and many non-PA theoretical
2 frameworks assist with intervention development (Hutchison et al., 2013). The
3 generalisability of these theories therefore still requires testing and it has been suggested that
4 predictions and theoretical explanations of maintenance should be tested across a variety of
5 contexts and populations (White et al., 2016). Research has suggested that understanding
6 maintenance of health behaviours holds importance, due to the health benefits seen after
7 making positive lifestyle changes over a long period of time. Long-term health benefits of PA
8 and sport are seen when older adults commit to activities for more than 6 months. Such
9 benefits include elevated cardiovascular reserve and skeletal muscle adaptations, alongside
10 reduced psychological distress (Awick et al., 2017; Laitakari et al., 1996; Roberts et al.,
11 2017). In addition, maintenance strategies, such as the relapse-prevention model, have been
12 linked to PA adherence (Kahn et al., 2002). Lifestyle change is normally said to reach the
13 maintenance stage from six to eight months after adopting the behaviour (Lally et al., 2010).

14 Differences between the initiation and maintenance phases of lifestyle change have
15 been identified in PA research and theory, highlighting different factors and mechanisms
16 present at different stages of lifestyle change (van Stralen et al., 2010; Voils et al., 2014).
17 Different factors in initiation, such as perceived access to facilities and functional limitations
18 were not identifiable in maintenance, where other factors such as enjoyment of PA and
19 having a sports partner were more prevalent (van Stralen et al., 2010). This suggests that
20 initiation and maintenance may be considered as distinct phases in lifestyle change.
21 Moreover, previous research examining SP specifically has focused on participation as a
22 whole (Jenkin et al., 2017, 2018), with less focus on participant experiences and influences of
23 SP initiation and maintenance. Therefore, it is essential to explore factors that increase the
24 likelihood of increased maintenance to adapted sports and how this might be different from
25 the initiation phase, which may require different behaviour change techniques or

1 interventions. Exploring the experiences of initiation and maintenance of adapted sports like
2 walking football can inform the development of effective interventions aimed at encouraging
3 older adults to continuing to play for longer.

4 This literature review highlights the state of PA and SP in older adults, and the
5 benefits that these activities offer to older adults when continuing to play long term.
6 However, limited research focuses on maintenance of sport participation in this population,
7 especially in 'adapted sports' like walking football. The aim of this study was to build on
8 previous research exploring initiation experiences in 55- to 75-year-old adults playing
9 walking football, and qualitatively explore participant experiences of continuing to play
10 walking football long term.

11 **Methods**

12 **Research Paradigm**

13 As limited research has been conducted to understand older adults' maintenance experiences
14 in adapted sport, qualitative enquiry was used to explore and address the research question
15 (Braun & Clarke, 2006; Clarke & Braun, 2013). An inductive, data-driven approach to
16 answering the research question was used, due to the limited research in this area and to
17 allow novel data to emerge in this context (Hilton & Johnston, 2017; Laverack, 2017; Ogden,
18 2016). The study design was guided by underpinning principles of phenomenological
19 research (Groenewald, 2004; O'Halloran et al., 2018), defined as "understanding social and
20 psychological phenomena from the perspectives of people involved" (Groenewald, 2004,
21 p.44).

22 **Participants**

23 Participants were recruited as part of a larger study exploring initiation and maintenance
24 experiences of walking football, and were interviewed in two parts, the first part exploring

1 initiation (Cholerton et al., 2020) and the second part exploring maintenance. This paper
2 reports the findings from part two only. The participants were recruited from different
3 walking football clubs across the UK. Participants were screened prior to data collection to
4 ensure they met the inclusion criteria for the study. Inclusion criteria specified participants
5 fell within the bracket of 55-75 years of age. Participants were required to have played
6 walking football for 6 months or more, to ensure participants satisfied the minimum term of
7 maintenance (Lally et al., 2010; van Stralen et al., 2009). Participant recruitment took place
8 through visiting local football clubs, as well as promoting the study via social media
9 channels.

10 **Participant demographics**

11 In total, 17 participants were interviewed (nine male, eight female). Participants were aged
12 between 55 and 71 years (Mean age = 64 years). Eleven participants had been playing
13 walking football for less than two years at time of interviewing, five participants taking part
14 between two and five years, and one participant taking part for over five years. Fifteen
15 participants had over ten years of experience participating in sport across their lives, with two
16 female participants having two to five years of sporting experience. Participants interviewed
17 were from a range of clubs from areas representing different SES levels. SES was determined
18 by the English indices of deprivation (Department for Communities and Local Government,
19 2015) and Scottish Index of Multiple Deprivation (Scottish Government, 2016). Five
20 participants played at a club located in an area containing the 20% least deprived population
21 in the UK (high SES), five participants from a club located in an area containing the 40%
22 most deprived UK population (middle SES), and seven participants from a club located
23 within an area containing the 20% most deprived UK population (low SES).

1 **Interview Guide Design**

2 The interview guide was developed acknowledging the research aims, as well as
3 taking into account a review of previous literature within the area of SP (Heo et al., 2013;
4 Simkin & Gross, 1994; Stenner et al., 2016). The interview guide used semi-structured, open
5 questions, addressing areas such as breaks in play, factors motivating continued participation
6 and what may cause long-term breaks from walking football. Example questions from the
7 interview included; *“Tell me about a time you have taken a break in playing walking*
8 *football”*, *“What are the most important things about walking football that motivate you to*
9 *continue to participate?”*, and *“What might make you completely stop playing walking*
10 *football in the future?”*. Follow-up questions (Roulston, 2012) were also used, to attribute
11 meaning to answers and assist participants with recall when being interviewed (McKenna et
12 al., 2004; Wenger, 2011). These included, for example; (when discussing factors relating to
13 continued participation) *“Why is/are that/they most important to you?”* and *“What*
14 *encourages you to continue playing even when you don't feel like it?”* Prior to data collection,
15 a pilot interview was conducted with an older-aged adult. The pilot interview highlighted
16 small, administrative changes to the study, for example rewording of certain language and
17 using lay language (for example, ‘staying in the sport’ instead of ‘maintenance’) when asking
18 interview questions.

19 **Procedure**

20 Ethics approval was obtained from Sheffield Hallam University Research Ethics
21 Committee (May 2018). One-to-one interviews took place via face-to-face and telephone
22 with the lead researcher, who had no prior relationship to the participants interviewed. The
23 interviews were recorded using a digital sound recorder. Telephone interviews were chosen
24 to reach participants from diverse locations across the UK. Before interviews, participants
25 received an information sheet and a participant consent form, where informed consent was

1 received via writing or recorded verbal consent, in the case of telephone interviews.
2 Participants also completed a brief demographic questionnaire before the interview, either on
3 paper if the interview was face to face, or communicated verbally before the interview if by
4 telephone. This allowed the researcher to obtain further demographic information from the
5 participants (age, gender, sporting experience, and time playing walking football). Club
6 locations have not been disclosed to ensure participant anonymity in line with General Data
7 Protection Regulation (GDPR) guidelines. Participants were offered the opportunity to fill
8 out a lifegrid (a hard-copy or digital grid, detailing prevalent years relating to previous and
9 current sport participation, ages they started sports, and any life events which coincided with
10 sport participation) in order to help improve recall (Parry et al., 1999), however no
11 participants chose to utilise this. The mean interview time was 27 minutes. Where possible,
12 'memoing' was used by the researcher where possible whilst the interviews were taking place,
13 to collect any useful reflections on the interview that may not have been explicit on the
14 interview file (Miles & Huberman, 1994). Participants were debriefed immediately following
15 the interview and offered the chance to email or contact the researcher regarding the study or
16 provide any information they had not discussed within the interview. All participants were
17 contacted and offered the chance to read transcripts as part of member checking (Birt et al.,
18 2016); four participants confirmed reading transcripts with no changes to be made, with the
19 others participants not responding to the email with any changes to be made.

20 **Data Analysis**

21 Interviews were transcribed verbatim by the lead author with Microsoft Word and
22 Audio Notetaker, and after all transcripts had been completed, personal details were removed
23 from transcripts to protect participant anonymity. Once all data from recordings were
24 transcribed, transcripts were read multiple times, allowing for immersion in the data (Miles &
25 Huberman, 1994). The lead author coded the interviews using the NVivo software package

1 (QSR International Pty Ltd, Version 11, 2017, Burlington, MA, USA). An inductive thematic
2 approach was implemented when coding raw data, allowing for novel themes to emerge from
3 the data collected (Braun & Clarke, 2006; Thomas, 2006). A pre-given framework was not
4 assigned to the findings, in line with principles of phenomenology and to allow for a rich and
5 in-depth account of individual experiences (O'Halloran et al., 2018). Peer consultation of the
6 data took place with another researcher within the field of behavioural psychology. The
7 second researcher independently read through transcripts and codes determined by the initial
8 researcher were checked accordingly. Discussions between the two researchers resolved any
9 coding differences which occurred. Seventeen interviews were analysed and transcribed.
10 Additional discussion of the themes and subthemes took place within the wider research team
11 of psychologists, all with expertise in qualitative research and sport and exercise psychology,
12 in order to reach agreement of the themes and to maintain analytic rigour (Tracy, 2010).

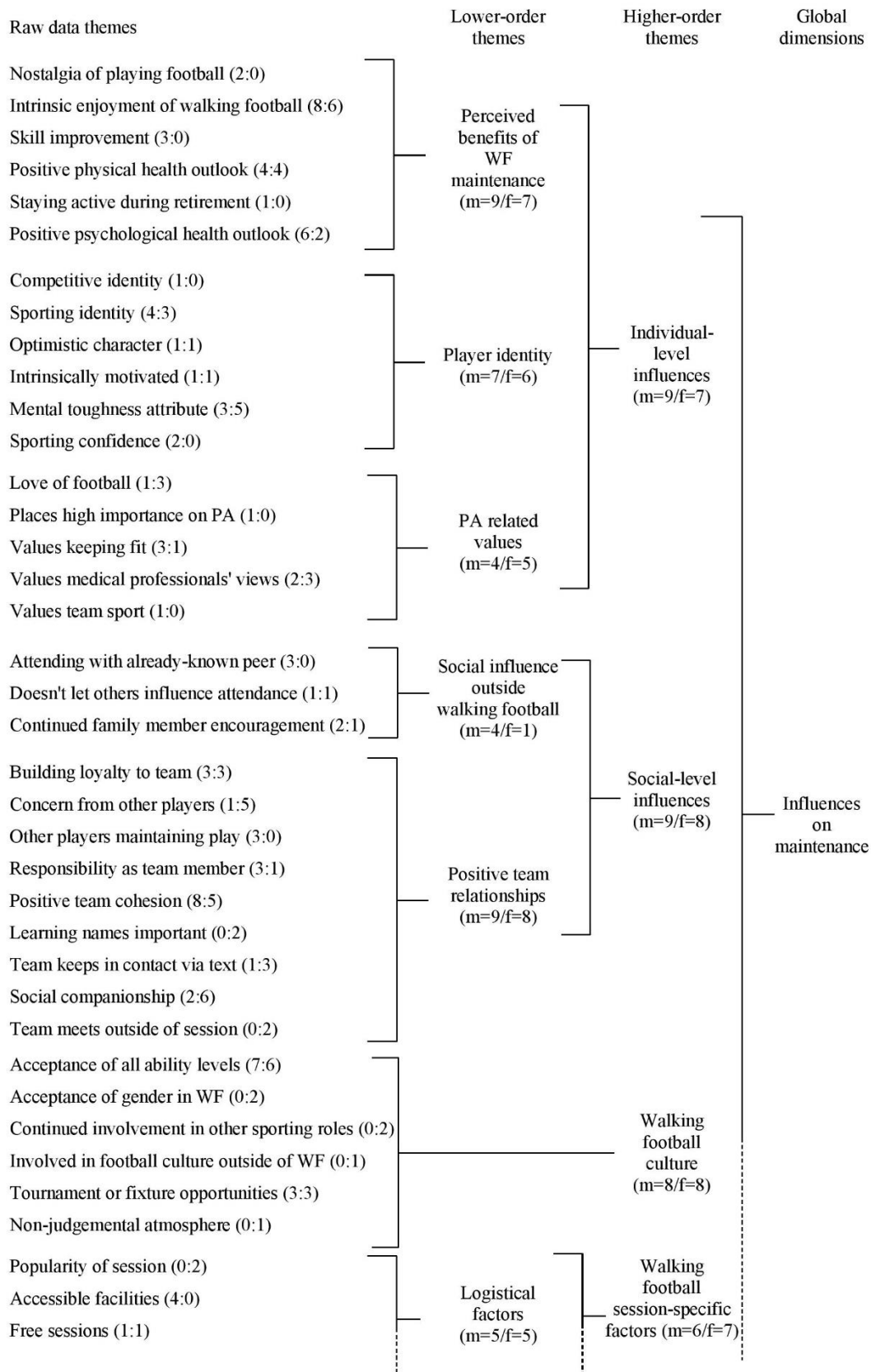
13 **Findings**

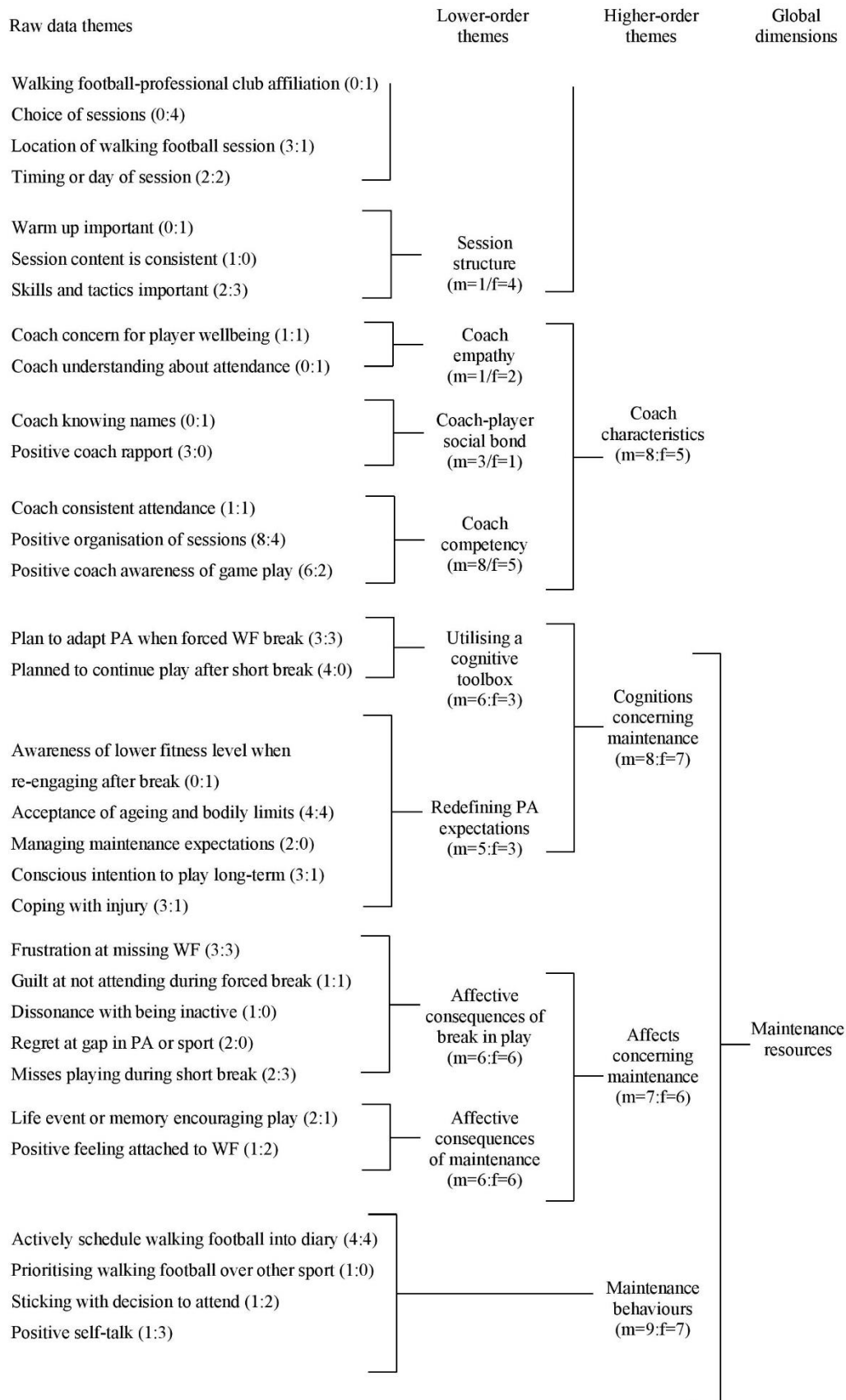
14 **Identified Themes**

15 A total of 114 raw-data themes emerged from the analysis of the data. Further
16 analyses of the raw-data themes revealed five higher order and 10 lower order themes that
17 collectively represented influences involved in participants' walking football maintenance.
18 Two higher order and four lower order themes represented the global dimension concerning
19 mechanisms related to maintenance. The full analysis of higher order, lower order and raw
20 data themes can be seen in Figure 1. Each of the higher order themes will be explained in
21 detail below and where subtle differences arose between genders and those from different
22 socio-economic areas, these have been noted within the relevant theme. Within the figures
23 provided, the gender split of each raw data theme has been recorded (e.g., 4:4, male to female

1 respectively). Verbatim quotes are provided to demonstrate themes and are labelled with a
 2 player pseudonym, gender (e.g., M = male / F = female) and player age (e.g., 65).

3





1 **Influences on Maintenance**

2 Higher order themes related to influences on walking football maintenance, which
3 were aspects of a participant's life believed to encourage walking football for those
4 continuing to play after six months. These included individual-factor influences, social-factor
5 influences, walking football culture, walking football session-specific factors, and coach
6 characteristics.

7 **Individual-level influences.** This higher order theme consisted of three lower order
8 themes: perceived benefits of walking football maintenance, player identity and PA related
9 values. A positive physical and psychological health outlook was prominent amongst
10 participants, and whilst both male and female participants acknowledged the physical
11 benefits of taking part in the sport, noticeably more male participants reported the
12 psychological benefits related to walking football play. One participant discussed that
13 walking football served as a respite from daily life, stating "yeah, you don't have anything
14 else on your mind for that hour. No matter what's going on in your life." (William, M, 64).
15 The intrinsic enjoyment (i.e inherent enjoyment, rather than enjoyment for a particular
16 outcome) of walking football was also important to two-thirds of participants, with one
17 participant explaining that she never felt as though she did not want to attend football
18 sessions, unlike more conventional types of exercise:

19 When you question not going, sometimes I think oh no I'm not looking
20 forward to this boot camp on Thursday, I never ever have that on the Monday or the
21 Friday at football (Nina, F, 60)

22 Participants also reported that a strong sporting identity encouraged them to maintain play,
23 with a large proportion of participant interviews reporting many years of sport involvement.
24 One participant stated "I've always done something sporty. You know, almost always, apart
25 from a gap when I hurt my back and I couldn't. So, there's always something that says you

1 know, I want to do something, I want to do something" (Theo, M, 62). Experiences related to
2 the player's ability to persist, and manage setbacks and adverse situations (i.e. mental
3 toughness) was reported by approximately half the participants interviewed, which
4 encouraged maintenance and helped overcome barriers to participation on a weekly basis.
5 Many participants claimed that they did not avoid sessions due to bad weather, with one
6 participant saying that they have "been out there in the rain before now, and played football
7 and loved it and thinking yes, you know I ain't frightened of rain" (Heather, F, 58).

8 Long-term values and perceptions participants held around sport, health and exercise
9 were also discussed as influential on maintenance. Overall, values relating to maintenance
10 included the love of football. One participant expressed that "I love five a side and this
11 [walking football] is to me my five a side now" (Jim, M, 61). In addition, many participants
12 from varying SES levels valued medical professionals' views on PA and sport, with some
13 participants discussing that they would take medical professional recommendations seriously
14 and consider ceasing walking football play if their doctor advised against playing walking
15 football:

16 I mean up till now, I've mentioned it to my doctors and what have you when I've been
17 to whatever, they've been like oh no that's great, yes brilliant, exercise good for you,
18 so. I think until somebody tells me you can't do that anymore then I'm gonna do it.
19 (Alice, F, 65)

20 **Social-level influences.** Two lower order themes were identified as social-level
21 influences on walking football maintenance: social influence outside walking football and
22 positive team relationships. Positive encouragement from peers outside of walking football
23 was believed to facilitate maintenance, and family members were also reported to actively
24 encourage participants to maintain behaviour. One participant discussed her relative's
25 positive influence on attending walking football sessions, stating that "I think sometimes you

1 do feel tired but then sometimes I even hear my sister's voice... you know because it's um,
2 once you get out there, you get going again" (Heather, F, 58). Some participants also felt that
3 attending walking football sessions with a peer encouraged maintenance, with one participant
4 discussing the influence his friend had on sporting activities throughout their lifetime:

5 I've known [friend] um, thirty odd years, our wives used to work together,
6 kids are same age, they grew up knowing each other so, you know there's a lot of
7 interplay or whatever, and we just go, we are different people without a doubt but um,
8 he's a bit older than me but um, we just do things whatever, we've played tennis in the
9 past together, we've played cricket probably about three or four times together, um,
10 but you know, it just works somehow. (Theo, M, 62)

11 Nevertheless, despite this support from family and peers, the majority of participants
12 discussed the importance of team relationships. Positive team cohesion was discussed by over
13 two thirds of participants interviewed, particularly the camaraderie of the teams and
14 encouragement given between team members, as well as one participant mentioning that
15 "You feel as though you're part of a football team" (Charles, M, 71). Female participants also
16 highlighted the support and specifically the concern from other members of the team if they
17 had missed a session or injured themselves in play, as highlighted by one participant:

18 You have the caring side where [name], I mean I don't think I've experienced it
19 myself but she got a really bad cramp...and she could not get her knee back but, they
20 all stopped and you have about four or five of them round her trying to help her and
21 comfort her (Anna, F, 61).

22 Male participants also reported team connections, however discussions focused more on
23 loyalty and responsibility which aided maintenance in walking football for some participants.
24 One participant talked of the responsibility to turn up so teams can be made up to play games,
25 "just because I don't feel like it, it's not an excuse." (Frank, M, 65).

1 **Walking football culture.** This higher order theme related to the culture surrounding
2 walking football which influenced participants' continued engagement in the sport. Many
3 participants described the acceptance of all ability levels within the club and one participant
4 discussed working with others with varying mental and physical conditions:

5 For me the important thing about those sessions is giving people who wouldn't
6 normally get the chance to play at all, the opportunity to play, I mean there's one guy
7 there who's got dementia, you know we don't change over at half time because it adds
8 another aspect that you've got to focus on (Alice, F, 65)

9 Additionally, many participants were encouraged by the club providing opportunities to play
10 in fixtures or tournaments. Several participants highlighted tournaments as an opportunity to
11 bond with team members of all abilities, and participants expressed a general level of
12 acceptance and team cohesion even if games were lost, "so long as we played our best as a
13 team" (Jim, M, 61). One female participant also mentioned the positive nature of tournaments
14 in relation to self-confidence and cultivating team connections:

15 I never would have even contemplated doing [a tournament], but you know things
16 like that, doing the football tournament to Spain, you know, I was the only woman in
17 a bunch of like, 15 blokes, you know what, so what?... I tried, a couple in my closer
18 friends from football were there and, you know it was great. (Alice, F, 65)

19 **Walking football session-specific factors.** This higher order theme consisted of two
20 lower order themes, relating to logistical factors and session structure. Within the lower order
21 theme of logistical factors, accessible and free sessions for those who may not be able to
22 afford weekly sessions were discussed by some participants of varying SES levels, as well as
23 female participants discussing the choice of sessions as being an important factor. One
24 participant discussed the benefit of having access to multiple sessions, with different groups
25 for different ages:

1 There's so many different sessions that, not particularly different abilities but
2 different age groups, to be able to, participate so, say, if, they've got an over 50s
3 group, and I can go and play in that, just because it says over 50s, and you're over 60
4 doesn't mean you can't go to us, so it's such a great mix (Nina, F, 60)

5 In terms of the walking football session structure, both male and female participants
6 discussed the ability to practice skills and tactics within sessions. One participant discussed
7 that skills and tactics were only weaved into sessions when attendance had dropped, for
8 example, over summer months when participants went away on holiday:

9 Then when we first started, and it's like, three of us who've turned up, to one
10 [session], and that can happen in the summer sometimes, when people go off on their
11 holidays and some things, it, just been given little skills to practice and things
12 (Andrea, F, 66)

13 Nevertheless, some participants felt that further emphasis on skills and tactics would be
14 beneficial within sessions, in order to improve ability during maintenance:

15 I think because, you know having played it for a year now and it, I'd say it's dropped
16 hints to us about tactics or a couple you know, calling people's names and things like
17 that when you go for the ball and telling them where you want it, but it's good to
18 reemphasise that (Paul, M, 71)

19 **Coach characteristics.** This higher order theme relates to the coach characteristics
20 which were highlighted by participants as important factors in their maintenance of walking
21 football. Lower order themes included coach empathy, the coach-player social bond, and
22 coach competency. Regarding coach competency, positive organisation of sessions and
23 awareness of game play was highlighted by the majority of participants as important for
24 walking football maintenance, with many participants praising the coach for enforcing
25 correct walking football rules, as highlighted by one participant:

1 [Coach] again, is very much on top of it, if you get, and we had one the other week, a
2 guy started he was new, he was, possibly a bit younger than most of us cos it's any
3 age group it's not whatever, he was 40s I suppose, and he was getting a bit keen and
4 getting a bit kicky or whatever, yeah we don't do that, no. (Theo, M, 62)

5 Nevertheless, one respondent noted confusion when it came to game play and rule
6 interpretation. They wrote that “one person’s overhead height isn’t the same as the next...”
7 and that there are concerns for when players are not penalised for running. This raises issues
8 relating to the standardisation of walking football rules within club sessions.

9 Participants appreciated when the coach showed concern for team players’ well-
10 being, and female participants often discussed the coach’s empathy if any injury issues were
11 presented or reasons for missing a session. More male participants than female discussed the
12 social bond with the coach and the coach knowing the players’ names was discussed,
13 alongside positive coach rapport and ‘pulling [coach’s] leg a little bit’ (Paul, M, 71),
14 highlighting ‘banter’ shared between the team and coach.

15 **Maintenance Resources**

16 The global dimension of maintenance resources refers to the cognitive, affective and
17 behavioural processes which participants employed during maintenance of walking football,
18 to manage behaviour and continue walking football play. Higher order themes within this
19 global dimension included maintenance thought processes and maintenance behaviours.

20 **Cognitions concerning maintenance.** There were two lower order themes within this
21 higher order theme, relating to thoughts participants experienced when considering how to
22 maintain walking football. These themes were ‘utilizing a cognitive toolbox’ and ‘redefining
23 PA expectations’. ‘Utilising a cognitive toolbox’ referred to the participants’ thought
24 processes when adapting PA activities, after being forced to take a break from walking
25 football. One participant discussed the return to PA when taking a break from walking

1 football due to medical reasons. They stated that when they returned, they were “taking it
2 steady. Building up, and I did that at the gym, did that, I started gingerly playing golf again,
3 going for walks, just gradually not throwing myself at it to get myself back to where I was”.
4 (Frank, M, 65)

5

6 The redefining of ageing and acceptance of bodily limits was discussed by half of the
7 participants interviewed, when discussing maintenance experiences. One participant
8 discussed the cognitive acceptance of bodily limits when ageing, in relation to injury whilst
9 playing walking football:

10 I hurt my foot, and it was like I can't I know I can't go but I've resigned to the fact
11 yeah, it's okay so... I'll be back this week and back we go again, boom, gone. You
12 know. You have to accept that that might happen, and it can happen and it probably
13 will happen. You know, to people at our kind of age. (Theo, M, 62)

14 Alongside this awareness and acceptance of bodily limits, participants discussed the
15 flexibility of walking football being beneficial for maintaining participation, especially when
16 returning from injury. One participant discussed the flexibility of playing in different
17 positions when returning from injury and if they have “just got another pain, um, and they'll
18 just sort of stay in goal” (Emily, F, 64).

19 **Affects concerning maintenance.** Within this higher order theme, two lower order
20 themes relating to affective consequences of break in play and affective consequences of
21 maintenance were discussed. Participants talked about the affective consequences of small,
22 planned and unplanned breaks in walking football (for example, through an injury or a
23 holiday). Five participants expressed they missed playing the sport, with one player stating
24 they “had to get back” (Olivia, F, 58). This was often paired with a dissonance of being

1 inactive, or having guilt for not attending during a short break, as one player recalls when a
2 break was forced, due to a medical procedure:

3 I felt guilty not being here to be honest with you, it's a bit like when you go to work
4 [laughs] you know when you go to work and you're off sick and you think I should be
5 at work, what am I doing, I should be at work. It's a bit like that, so Wednesday nights
6 came round and I was sending [coach] a text saying I'm a bit under the weather I don't
7 think I can make it tonight, I actually felt I wanted to do it. (Frank, M, 65)

8 Further affective consequences of maintenance were discussed by participants, which
9 related to the feelings players had as a consequence of maintaining walking football play. In
10 some participant experiences, a previous life event or memory encouraged ongoing play:

11 It really does make you realise you know, I mean, I lost my partner, we'd been
12 together [number] years...it brings it home to you, you know there's so many things
13 that we talked about doing that we didn't, we never had the chance to do, we'll never
14 have the chance to do, and it's true what they say, life's too short. (Alice, F, 65)

15 Equally, some participants shared their experiences of having positive feelings
16 attached to walking football, with one participant recalling affects after the session has
17 finished, stating “rarely you felt, oh I wish I hadn't come tonight” (Paul, M, 71). Another
18 participant discussed that maintenance changed the feelings related to walking football,
19 “because having done it so many times, you just know that you do feel better, after” (Emily,
20 F, 64).

21 **Maintenance behaviours.** This theme relates to the behaviours participants actively
22 employ to keep themselves playing walking football. Three of the most prominent behaviours
23 were the sticking with the decision to attend, actively scheduling walking football into a
24 diary, and prioritising walking football over other sports and PA. Having walking football
25 sessions as part of a weekly routine was believed to facilitate ongoing maintenance and help

1 to overcome any potential barriers. Planning walking football into participants' schedules
2 ensured that other commitments could be scheduled around the walking football, and that
3 walking football is "habit, it's in my head, Thursday night, is walking football night, and I go,
4 say it's freezing cold, chucking it down with rain, whatever, I will go, and there will always
5 be somebody there" (Jim, M, 61).

6 Some participants ensured, on a weekly basis, that commitments (e.g., part-time work
7 or social occasions) did not clash with walking football commitments and "made sure things
8 work round" walking football (Charles, M, 71). For a number of participants, committing to
9 the decision to attend was important to maintaining walking football participation for some
10 participants interviewed, both male and female. Participants expressed that "once I've made
11 my mind up, to go, I tend to stick with that decision" (Timothy, M, 71). Positive self-talk was
12 also discussed as a helpful maintenance technique. Positive self-talk was reported more by
13 females and was said to facilitate motivation to attend sessions:

14 It's, you've gotta get up and get yourself motivated because you've gotta tell yourself,
15 you've gotta talk to yourself and I do, I talk to myself, not out loud but I tell myself
16 you lazy so and so, you know, get up (Heather, F, 58)

17 **Discussion**

18 The purpose of this study was to explore experiences of walking football maintenance in
19 older adults between 55-75 years old. Findings from the current study have suggested that
20 continued participation in walking football includes many factors and influences at play, with
21 themes arising from previous literature, alongside new findings specifically relating to
22 walking football. Findings from the current study have suggested that continued participation
23 in walking football may be due to many factors and influences. New findings have been

1 found, specifically relating to walking football, as well as similar themes arising to previous
2 literature in mainstream sport participation.

3 **The importance of individual factors.** Individual level influences, such as perceived
4 benefits of walking football maintenance were highlighted by the majority of participants,
5 including the enjoyment of competition, the enjoyment of the game itself, and also the
6 positive outlook of physical and psychological benefits. Similar themes have emerged in
7 previous research, with Stenner and colleagues (2016) highlighting perceived benefits as
8 being a reason for older adults' regular involvement in golf, alongside Jenkin and colleagues
9 (2018) highlighting the importance of competition within walking basketball players.
10 Rothman et al.'s (2009) Theory of Behavior Maintenance highlights factors such as the
11 importance of satisfaction of the behavior change, and making temporal comparisons, as
12 being integral to behavior maintenance. This is seen in this study's findings, with participants
13 highlighting the benefits gained from playing walking football (both physical and mental).
14 van Stralen and colleagues (2010) also highlighted intrinsic motivation as being a driver for
15 PA maintenance in people over 50 years. SDT (Ryan & Deci, 2000) also highlights the
16 importance of intrinsically focused goals in maintaining health behaviours such as PA, and
17 further systematic reviews have supported the positive relationship between intrinsic
18 motivation and long-term exercise adherence (Teixeira et al., 2012). Despite these similarities
19 to previous studies, the walking football players in this study discussed qualities of walking
20 football that were sport specific, such as the ability to compete whilst playing in a safe
21 environment. Walking football players tended to have a strong sporting identity, and walking
22 football allowed players to continue playing sport where mainstream sport participation was
23 not possible, for example during injury or experiencing a health condition. This highlights the
24 valuable use of adapted sports, allowing for those who may not be able to participate in
25 higher intensity sports to maintain SP in older adulthood.

1 Values and perceptions of PA were also highlighted amongst participants.
2 Interestingly, a number of participants (both men and women, from varying SES levels)
3 discussed their values relating to medical professionals' views on walking football and PA,
4 with participants stating they would consider giving up walking football participation if a
5 medical professional advised against play. Previous research has highlighted the importance
6 of healthcare provider advice in relation to PA support (Van Stralen et al., 2010), however no
7 research has explored this within SP specifically. This research highlights the importance
8 older adults place on their healthcare providers 'approving' their participation in walking
9 football, and the influence this may have on players' continuation in the sport. Additionally,
10 previous theories have discussed the benefits of implicit attitudes within the stage of initiation
11 (Rothman et al., 2009), however this was not highlighted as salient in the stage of
12 maintenance. This study suggests that values and perceptions relating to health and the
13 behaviour still remain important in 55-75 year-old walking football players.

14 **Walking football relationships and culture facilitating maintenance.** Social
15 influences within and outside the club environment were important in the maintenance of
16 walking football. Whilst social influences outside of the club (such as support and
17 encouragement from family members) were discussed, the majority of discussions focused on
18 the walking football culture itself, from club culture, to coach characteristics and team
19 connections. This research supports previous PA research in older adults, suggesting social
20 support, such as from family members and peers, is important when maintaining PA habits
21 (Maula et al., 2019; van Stralen et al., 2009; Wahlich et al., 2017), and previous walking
22 football research has highlighted the importance of team connections during interventions
23 with older adults (Reddy et al., 2017). Current findings also draw parallels with other
24 population groups, including youth sport and the notion of a positive 'social climate'
25 influencing intention to continue, including relationships with parents, coaches and peers

1 (Gardner et al., 2016). In the current study, whilst some older adults simply went to play
2 walking football and were not interested in forming new social connections, the majority of
3 participants highlighted the importance of camaraderie, social connections, and having a
4 good relationship with the coach. This theme was similar to themes found during experiences
5 of initiation (Cholerton et al., 2020). This highlights the continuing need for positive social
6 connections in sport throughout the life span in not only initiation, but also within the
7 maintenance phase.

8 Themes from this study included the ongoing acceptance of all ability levels from a
9 club culture level. By accepting older adults with varying levels of football, or indeed
10 walking football experience into adapted sport, walking football may offer a more lenient
11 atmosphere that mainstream sport with a higher intensity may not be able to offer. Again,
12 similar parallels can be drawn to youth sport and the influence of an inclusive club culture
13 (e.g. a 'caring climate') encouraging commitment to a sport (Hall et al., 2017). This study
14 reinforces that a caring and inclusive club culture is important to cultivate, no matter the age
15 of the players.

16 **The role of walking-football session specific factors.** Lastly, session specific factors
17 were found to play a role in influencing walking football maintenance in older adults.
18 Logistical factors such as the choice of sessions, alongside accessible facilities and in some
19 cases free sessions were all related to ongoing maintenance. Within session structure, a skills
20 and tactics portion of the session was deemed important by both male and female
21 participants, highlighting the interest in learning skills alongside simply playing the game,
22 which has been seen to aid positive development within older adulthood, both physical and
23 psychologically (Baker et al., 2010; Pesce & Audiffren, 2011) Previous research suggests that
24 by giving players choice and accessibility to sessions, the initiation of PA and sport is
25 encouraged (Jenkin et al., 2018; Michie et al., 2011; van Stralen et al., 2009) Whilst many

1 maintenance theories have focused on the individual and social aspects of maintenance, such
2 as Rothman et al., (2000; 2009), some theories have explored environmental aspects on
3 maintenance of health behaviours, such as access to facilities and the safety of such
4 environments (Nigg et al., 2008; Sallis et al., 2012). These session-specific factors highlight
5 the importance of keeping sessions accessible (such as choice of sessions and good facilities),
6 even when players have been maintaining SP, in order to influence further and longer-term
7 engagement, highlighting how certain aspects of the walking football environment can
8 encourage maintenance.

9 Overall, the identified influences on walking football maintenance can be compared
10 to previous research (van Stralen et al., 2009) and established ecological models relating to
11 PA participation (Spence & Lee, 2003), which highlight a set of multilevel influences (intra-
12 and extraindividual) on an individual's PA levels. Such influences included individual-level
13 influences such as player identity, social support, and a suitable environment and culture on
14 the ability to maintain walking football play. Nevertheless, new themes represented the added
15 factors relating to adapted sport, such as the walking football specific culture, and coach
16 specific characteristics, which suggest different factors to consider when examining adapted
17 sport's ability to encourage PA maintenance in older adults.

18 **The utilisation of individual maintenance resources.** Cognitions, affects and
19 behaviours relating to walking football maintenance were discussed widely by participants.
20 Some conversations surrounding this theme focused on the planning of breaks in play (e.g.,
21 holiday or injury) and in the cases of mostly female participants, the use of self-talk to
22 encourage participation. The availability of 'maintenance resources' have been discussed in
23 previous literature and suggest that the availability of these psychological and physical assets
24 that can be drawn on during maintenance may affect the individual's ability to maintain the
25 behaviour (White et al., 2016). Additionally, behaviours influencing walking football

1 maintenance included embedding the routine of walking football sessions into the
2 participants' lives and sticking with the decision to attend sessions. Cognitions experienced
3 by the participants, especially the affective consequences of PA and planning for breaks in
4 play, supports previous evidence relating to behaviour change and a repeated, consistent
5 performance of the specific lifestyle behaviour that has been changed (Rothman et al., 2009;
6 van Stralen et al., 2009). Redefining of PA and bodily expectations was also discussed by
7 half the participants from a range of SES levels, and highlights similarities between
8 Rothman's theory of behaviour maintenance (2009), and 'shifting expectations' behaviour
9 seen in the maintenance phase of a healthier lifestyle behaviour, suggesting this can be seen
10 across different behaviours, from dietary change to PA. Certain narratives from the players
11 suggest that due to walking football's adaptive nature (such as the ability to change player
12 positions and play at a gentler speed), the sport allowed time for injuries to settle and for
13 players to adapt to a new sporting life in older age. This may suggest that walking sports such
14 as walking football, may aid older adults to shift expectations in their PA ability as they reach
15 older age.

16 Despite these similarities, Rothman and colleagues' study (2009) suggests planning
17 and implementation intentions were primarily seen within the stages of initiation, whereas
18 this study suggests that planning and intention to play long term is still important at the stage
19 of maintenance, in relation to attending walking football sessions and with some players
20 planning in their diary when to attend sessions. This highlights the need to consider the role
21 of planning and implementation intentions when encouraging PA or sport maintenance in
22 older adulthood, and encouraging active planning of attending sessions into the maintenance
23 stage. It is also important to note that whilst previous research has highlighted the ability of
24 SP in later life to help older adults redefine and accept older age and bodily limitations
25 (Dionigi, 2002; Dionigi et al., 2013) some research has reported that sport, in some instances,

1 can hinder this and push older adults into denying ageing processes. One such example of an
2 age process is degeneration (Dionigi et al., 2013), which could encourage ignorance of
3 injuries in this population. This knowledge provides an understanding into how adapted sport
4 can provide older adults with a form of PA, while allowing players to accept bodily limits
5 and adapt play to suit this, as an alternative to mainstream sport.

6 **Applied Implications and Future Research**

7 Much of the analysis into walking football maintenance highlights the use of the sport
8 to encourage continued SP and on a broader level, PA participation. Many conversations
9 related to cognitions and behaviours concerning maintenance provide insight into relapse
10 prevention, for example players planning walking football into schedules, and also the
11 adaptation of PA when experiencing a short break from play. It is therefore advised that
12 coaches and clubs increase their awareness of those returning from injury or planning to go
13 on holiday, encouraging walking football play on return. Interestingly, the participants'
14 respect and reliance on medical professionals' advice across SES levels when taking part in
15 PA and sport was evident. It is imperative that health professionals understand the benefits
16 and risks of walking football play, so they can advise alternative activities to those looking to
17 increase PA levels. With much recent research highlighting the benefits of a whole system
18 approach and the need for preventative medicine (Brannan et al., 2019), further education for
19 medical professionals on the scope and range of different types of PA is essential.
20 Environmental, session-specific factors should also be taken on board, such as accessible
21 facilities and choice of sessions, in order to give older adults the biggest opportunity to
22 maintaining play. Lastly, the influence of the walking football coach should not be
23 overlooked. Coaches should organise sessions as much as possible to include not only game
24 play, but aspects of tactics and skills which may help players improve and progress over time.
25 In addition, group dynamics, camaraderie and coach-player relationships are important within

1 walking football and should be the focus of programmes aiming to encourage maintenance in
2 older adults.

3 In terms of future research, as the majority of work into psychosocial and behavioural
4 aspects of adapted sports has been largely explorative until now, further research to assess the
5 effectiveness of individual, social and environmental factors on adapted sport maintenance
6 would be advised, and may include exploring the fit of behaviour change frameworks into
7 this context. Further research may include prospective cohort studies to understand the key
8 ingredients and outcomes of adapted sport maintenance. The findings may also be used to
9 inform the development of programmes or strategies to enhance the ongoing participation of
10 older adults in sport. Further research into behavioural aspects of other emerging adapted
11 sports, such as walking netball and walking rugby, would also be recommended.

12 **Strengths and Limitations**

13 This study furthers understanding concerning experiences of maintenance of adapted sport,
14 which had not been studied previously. Strengths include a balanced gender sample,
15 recording of SES of clubs in order to understand experiences from different SES areas, and a
16 range of participants from across England and Scotland. The main limitation of this study is
17 that it presents the view of currently active players only. Further research exploring
18 perceptions of walking football from those that have dropped out of the sport and the views
19 of other stakeholders, such as coaches, may provide additional insight into the challenges
20 posed when maintaining SP.

21 **Conclusion**

22 This research aimed to understand experiences and influences of older adults, between 55-75
23 years old, continuing walking football play. Whilst maintenance has been heavily
24 documented within PA research, maintenance of SP from the perspective of older adults,

1 especially within walking football, is less understood. This research offers new knowledge
2 highlighting the ongoing awareness of walking football benefits, maintaining play after injury
3 or a short break, and social influences such as coach and team influence on player
4 maintenance. Furthermore, a positive walking football culture should not be discounted as an
5 important influence when maintaining walking football play. Additionally, maintenance
6 mechanisms such as cognitions (e.g. redefining PA expectations) and behaviours, (e.g.
7 planning walking football into schedules) are important to players when maintaining play.
8 Policy and practice suggestions include coach awareness of players returning from illness or
9 injury and wider awareness amongst primary care health professionals, such as GPs, of
10 walking football as alternative PA for older adults. The findings can be used to inform the
11 development of programmes or strategies to enhance the ongoing participation of older adults
12 in sport.

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