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## Walking football for older adults: A scoping review of research and health benefits

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### ABSTRACT

Walking football (WF) is an adapted form of football specifically designed to encourage sport participation among older adults. By modifying rules to prohibit running, aerial play, and physical contact, WF creates a safe and inclusive environment that promotes physical activity among individuals who may be excluded from traditional forms of sport. This scoping review aimed to provide a comprehensive overview of the current state of research on WF by analyzing studies from multiple databases, languages, and without time restrictions. A total of 21 peer-reviewed articles were included, revealing that most research has been conducted in Europe, particularly the United Kingdom, and primarily involves male participants. Despite its moderate-intensity profile—achieved through sustained movement at approximately 80% of maximum heart rate—WF has demonstrated benefits that extend beyond physical health. Evidence highlights positive outcomes in mental well-being and social connectedness, especially when sessions exceed 120 minutes per week. Furthermore, the practice has shown promise among special populations, including individuals with diabetes, prostate cancer, or dementia. These findings underscore the potential of WF as a public health strategy to support healthy aging, promote social inclusion, and challenge traditional gender norms in later-life sports participation.

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**KEYWORDS** Older people; maintenance; sport; health; training

## Introduction

The global population is progressively aging, with projections indicating a significant rise in the number of individuals aged 65 years or older worldwide. Estimates suggest this population will more than double

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from 761 million in 2021 to 1.6 billion by 2050 (United Nations, 2023). However, alongside this increase in life expectancy comes growing concerns about the health and well-being of older adults. A prominent issue is the high prevalence of physical inactivity among this group. Studies conducted across various countries reveal that less than 50% of older adults regularly engage in physical activities (Gomes et al., 2017; Phud, 2017; Sport England, 2018). Addressing this challenge involves managing exercise intensity and minimizing the risk of injury, both of which are crucial for promoting physical activity and sport participation for this population. In response to these challenges, researchers highlight the importance of exploring adapted sports tailored to their needs. These activities can play a significant role in keeping them physically active and motivated, enhancing their overall health-related quality of life (Cholerton et al., 2021; McPhee et al., 2016).

Several variations of football have been explored as potential options for maintaining sport participation in old age. One such variation is recreational football, which closely resembles formal football but prohibits block tackles to reduce the risk of falls (Mowle et al., 2022), as this move involves using the body and foot to directly block the ball and poses a high risk of injury. Research indicates that due to the high intensity of the activity, recreational football can lead to improvements in the functional capacity of older individuals (Duncan et al., 2022; Sundstrup et al., 2016). However, this form of football is typically dominated by men who have extensive prior experience with the sport and participate in matches with rules similar to official football. This setup often excludes women, individuals with limited experience in football, and those with mobility impairments from participating. In response to this exclusionary trend, walking football (WF) has emerged as a viable alternative. WF involves modified rules that facilitate the involvement of individuals who have historically been marginalized from traditional football (Corepal et al., 2020; Mowle et al., 2022). The main adaptations of WF involve not being able to run during the game, perform aerial plays, and have direct physical contact. Additionally, the field size and number of players can also be reduced to encourage sport participation.

The sport was initially structured in England in 2011 and has since spread to various countries around the world through dedicated organizations responsible for its management (Corepal et al., 2020). The growing success of WF is justified by at least three arguments related to the potential health benefits for this population: physical, mental, and social well-being. Regarding the first one, WF can promote improvement in overall physical condition, functional capacity, and prevention of cardiovascular diseases (Murtagh et al., 2010). In terms of mental health, regular physical activity has been associated with a lower incidence of indicators of depression and anxiety in older people (Benedetti et al., 2008). Finally, social well-being is

promoted through group classes that have enabled the development and strengthening of social connections (Nielsen et al., 2014).

Given all this potential, initial studies have been investigating the benefits promoted by regular WF practice. To summarize their findings, two reviews have been conducted so far. Corepal et al. (2020) analyzed studies published up to 2019 across all years and languages within multiple databases focusing on WF. Although the review provided an interesting overview of the literature, it was not restricted to older adults, including adults over 18 years old and limiting the conclusions about the benefits promoted to this population. The other robust literature review investigated studies published up to 2020 (Gamone et al., 2021). However, this study mainly analyzed bibliometric data and incorporated investigations on recreational football. Therefore, current findings overlap with benefits promoted to younger populations or through recreational football practice.

Thus, the aim of this research was to undertake a comprehensive literature review on walking football, encompassing various databases and languages while not limiting the publication year or the investigative theme. Opting for a scoping review enables addressing of diverse questions (both qualitative and quantitative) within a single study (Levac et al., 2010; Tricco et al., 2016). This research marks a significant milestone in establishing research priorities for WF in the upcoming years and identifying research priorities now that can contribute to future practices (Barreira et al., 2024; Kryger et al., 2021).

## Methods

This study was structured according to Joanna Briggs Institute (JBI) methodology for scoping reviews (Peters et al., 2020). It followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist (Tricco et al., 2018). A preliminary search was performed on databases including the Cochrane Database of Systematic Reviews, Scopus, SPORTDiscus, and Medline, revealing no ongoing or completed scoping reviews on the topic.

### Search strategy

The databases employed for this scoping review included SPORTDiscus, PubMed, Scopus, Web of Science and PsychInfo. Searches were conducted in December 2023. Records were identified utilizing a blend of title, abstract, and keywords within each of the databases. The following keywords were thus utilized: 'walking football' OR 'walking soccer', following a similar approach as outlined by Corepal et al. (2020) and Gamone et al. (2021).

**Table 1.** Inclusion and exclusion criteria used to select studies on walking football.

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> <li>• People older than 50 years playing walking football</li> <li>• Clinical and non-clinical populations</li> <li>• Published in English, Portuguese or Spanish</li> <li>• Original peer-reviewed journals</li> <li>• All levels of ability</li> <li>• All years of publication</li> <li>• All themes concerning walking football</li> </ul>	<ul style="list-style-type: none"> <li>• Recreational football</li> <li>• Results presented together with other sports</li> <li>• Proceedings</li> <li>• Opinion paper</li> </ul>

### Study selection

All records were imported into Rayyan (<https://www.rayyan.ai/>), a freely available online review management software (Ouzzani et al., 2016). The software facilitated the selection process. Duplicate records were indicated by automated tools, and their removal was confirmed following manual inspection. Two reviewers (JB and MS) independently evaluated the titles and abstracts based on the predefined inclusion and exclusion criteria (Table 1). Any discrepancies in the selection process were resolved through discussions in virtual meetings. Subsequently, full texts of the selected citations were retrieved and uploaded to a Mendeley group (Elsevier, Amsterdam, Netherlands), ensuring that each record would be thoroughly reviewed by two researchers.

### Data extraction and analysis

A collaborative online Excel spreadsheet (Microsoft, Albuquerque, New Mexico) was generated and utilized to extract data from the papers. The extracted information encompassed details such as authors, publication year, journal, geographical location/country, target population, sample size, and comorbidities. These quantitative variables were presented in both relative and absolute frequencies, enabling an understanding of the characteristics of the studies conducted so far. To explore the results found by these investigations, the findings were grouped into four categories that were defined to facilitate the thematic organization of the studies' findings. '*The game demands*' refers to the physical, physiological, and biomechanical aspects required during WF sessions. '*Initiating and maintaining in WF*' addresses motivational, social, and psychological factors that influence individuals to start and continue playing WF. '*Promoting health through WF practice*' focuses on the effects of regular WF participation on physical, mental, and social health. Lastly, '*The WF practice by special populations*' encompasses studies involving individuals with specific health conditions or under unique

circumstances, such as prostate cancer, diabetes, dementia, or fasting during Ramadan.

## Results

### ***Included studies***

This literature review assessed the scientific contribution on walking football, adopting a comprehensive approach across five scientific databases, with no time restriction, and considering three languages (Portuguese, English, and Spanish). Through a systematic search, we identified 181 results. After removing 62 duplicate studies, 119 articles remained to be evaluated considering the inclusion criteria. Of these, 88 were excluded or not being in accordance with the inclusion criteria, and 4 texts could not be accessed in full, despite attempts in different university libraries. One study was also excluded for not being in one of the pre-selected languages, another for including youth players, 3 for being proceedings, and 1 for being an opinion paper. Therefore, a total of 21 articles were included in the study (Figure 1).

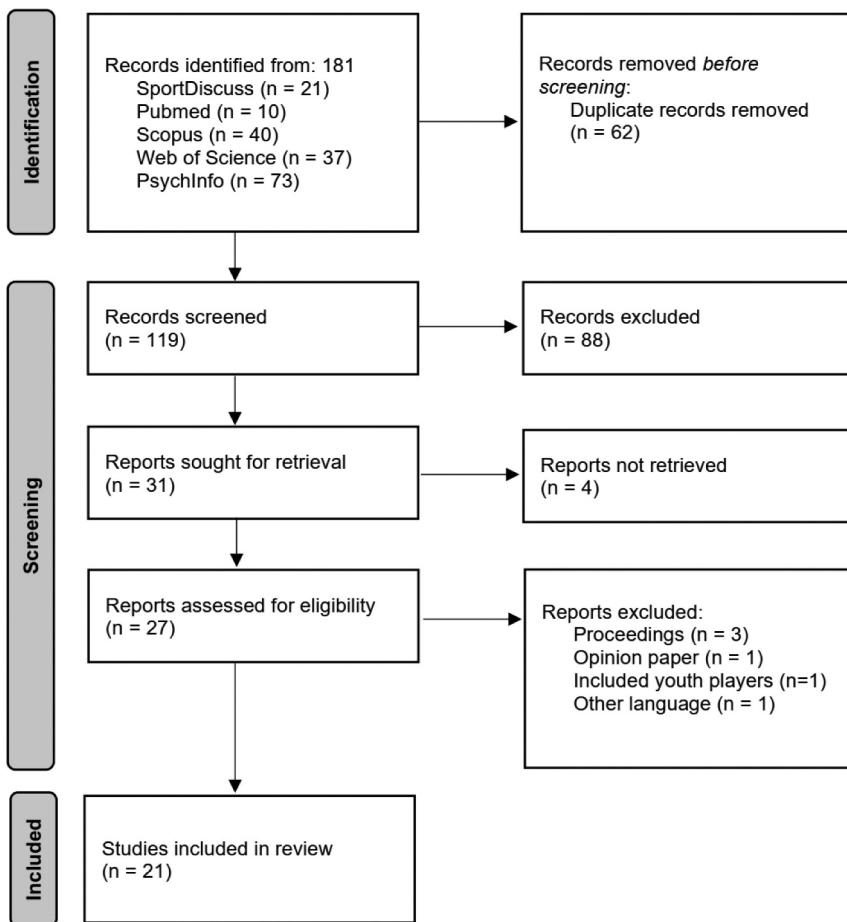
Figure 2 presents the number of studies published over the years. We note that the first publication on the topic dates to 2015 (Arnold et al., 2015), and the literature has been increasingly focusing on the sport, with the highest number of publications between 2020 and 2023.

The characteristics of the populations included in these studies are presented in Table 2. Some studies investigated more homogeneous age groups ( $64.4 \pm 4.5$ ) (Barbosa et al., 2020), while others showed a wider age range (50 to 70 years) (Cholerton et al., 2022). We note that men continue to be the most investigated population, and no study focused solely on women. Populations in special situations such as Ramadan (Kammoun et al., 2022; Zainudin et al., 2022) and those with diabetes (Barbosa et al., 2020, 2021, 2023) were also investigated. Regarding the location of the investigation, we found a predominance of European countries, led by the United Kingdom, followed by Portugal and Scotland.

Eleven studies investigated the impact of WF on different health indicators. The characteristics of the interventions conducted by the studies are presented in Table 3. We note that the majority of the studies investigated interventions lasting more than 12 weeks, with sessions of 60 minutes each. Regarding the weekly training volume, the studies used frequencies of 1 or 3 days per week.

### ***The game demand***

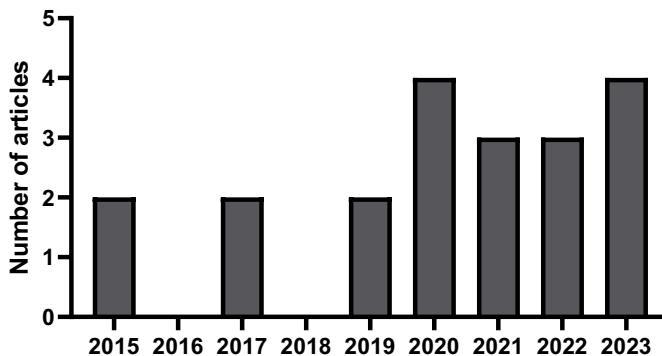
We found four studies that investigated the demands of WF in older adults. The first one explored the physiological, physical, and biomechanical



**Figure 1.** Flow chart of the study inclusion process.

demands of WF in 17 healthy men ( $66 \pm 6$  years old) (Harper et al., 2019). Participants were observed for a total of 25 sessions of WF, during which measures of heart rate, blood lactate, accelerometry data, and rating of perceived exertion were collected. The study showed that the mean percentage of maximum heart rate was  $76 \pm 6\%$ , with a rating of perceived exertion at  $13 \pm 2$ , and blood lactate increased by approximately 157% from pre-session to post-session, indicating that WF is a moderate to vigorous-intensity activity.

Subsequently, Madsen et al. (2021) investigated the intensity, perceived effort, and enjoyment of WF compared to traditional football (small-sided game) and walking. The authors examined 32 men and women aged 60–83. WF was played in 5v5 (men) and 6v6 (women) formats, on small-sided football pitches with medium-sized goals. Heart rate and locomotor activities



**Figure 2.** Number of studies on walking football published over the years.

**Table 2.** Characteristics of the participants of the studies on walking football.

Variable	Categories	N	%
Populations	Men	11	52%
	Women	0	0%
	Both	8	38%
	Not informed	2	10%
	Not informed	9	43%
	Diabetes	3	14%
	Ramadan	2	10%
	Healthy	2	10%
	Comorbidities	2	10%
	Dementia	1	5%
Country	Sedentary	1	5%
	Cancer	1	5%
	United Kingdom	9	43%
	Portugal	4	19%
	Scotland	2	10%
	Australia	2	10%
	Tunisia	1	5%
	Turkey	1	5%
	Sweden	1	5%
	Denmark	1	5%

were monitored throughout the sessions. The results showed that all three activities led to an increase in blood pressure, with walking being of lower intensity compared to traditional football. Heart rate and total distance covered were higher in traditional football and lower in walking, positioning walking football as an intermediary option between the physiological benefits of traditional football and walking.

In the same year, Salle et al. (2021) analyzed the average metabolic equivalent (MET) and walking cadence (WC) during competitive WF matches. The study included all members of four participating teams (22 women and 20 men) from Australia, Malaysia, and Singapore ( $51 \pm 11$  years old). Participants wore accelerometry-based activity monitors during matches.

**Table 3.** Characteristics of the interventions carried out in the studies on walking football.

Variable	Categories	N	%
Duration of the study	4 weeks	1	8%
	8 weeks	2	17%
	12 weeks	4	33%
	>12 weeks	5	42%
Days of training per week	1	5	45%
	2	1	10%
	3	5	45%
Training volume per session (min)	45	1	9%
	60	6	55%
	90	2	18%
	120	2	18%

The study found mean METs for each match ranging from 3.2 to 3.9, exceeding the hypothesized threshold of 3.0 METs. However, the mean WC of 44–63 steps/min was significantly lower than the expected threshold of 100 steps/min, leading to the conclusion that WF is played at a moderate intensity (or higher) in middle-aged and older adults.

Lastly, a more recent study by Andersson et al. (2023) investigated the physiological response to playing WF and the characteristics of the players. The authors analyzed 27 men and 13 women aged between 63 and 85 years. Players participated in up to four WF field games on artificial turf pitches. Heart rate monitors and GPS units were used for data collection during the games. The study found that players covered an average distance of 2,409 m (2,509 m for men and 2,205 m for women), with mean heart rates representing  $80 \pm 9\%$  of maximum for men and  $78 \pm 9\%$  of maximum for women. The authors concluded that walking football can be considered a moderate-intensity activity for older adults, consistent with previous findings (Harper et al., 2019).

### ***Initiating and maintaining in WF***

Several factors can influence both the initiation and maintenance of participation in the sport (Barreira et al., 2022). In the context of sport and exercise, initiation refers to the phase in which individuals are introduced to the activity while maintenance refers to the continued engagement in the activity after the conclusion of a formal program (Rhodes & Sui, 2021). The first study in this area was conducted by Reddy et al. (2017) who investigated a 12-week program conducted once a week for 60 minutes. At the end of the period, six semi-structured individual interviews were conducted. The authors showed that participants identified the sport as enjoyable, engaging, and with moderate physical demands. Initially, players found it difficult to avoid running, but later incorporated walking into their practice. Additionally, seven out of

eleven participants (63%) continued practicing the sport after the experimental protocol ended.

Subsequently, Cholerton et al. (2019) paid particular attention to factors influencing the initiation and maintenance of older adults in the sport. In their first study, the authors investigated the initiation experiences of WF players aged between 55 and 75 years, using semi-structured interviews with older adults who had been playing WF for 6 months. Previous sporting experiences, values, and perceptions were examined. The authors showed that developing strategies to cope with challenges—such as physical limitations, fear of injury, or adapting to new rules—and empowering players cognitively and socially were positive factors in this initiation phase. However, anxiety, fear of re-injury, and negative team dynamics were negative experiences that influenced sport practice.

In their second study, Cholerton et al. (2021) investigated the experiences of maintaining WF. The study showed that maintenance was influenced by individual, social, and cultural factors. At the individual level, participants mentioned positive physical and psychological health outlooks as well as intrinsic enjoyment. At the social level, positive encouragement from peers outside of WF was believed to facilitate maintenance. Within training sessions, positive team cohesion, particularly the camaraderie of the teams and encouragement given between team members, was identified as important for maintaining interest in the sport. According to the authors, the acceptance of all ability levels was an important factor for its continuity. Additionally, the study concludes by suggesting cognitive strategies (such as adjusting expectations regarding physical activity) and behavioral practices (like scheduling WF sessions) are crucial for players to sustain their participation.

Finally, in their latest study, Cholerton et al. (2022) investigated specific aspects that enabled the initiation and maintenance of 439 individuals in sports practice. The results revealed a significant influence of social relationships and sport culture. Those with two or more health conditions rated social interactions as more important for both initiation and maintenance than those with no health conditions. The authors suggest that professionals responsible for practice should focus on providing a positive environment that fosters social connections among participants. Furthermore, the study showed that gender and social class did not influence the desire to initiate and maintain participation in the sport. According to the authors, social constructs that historically limit access to sports may have been minimized by proposing a new sport with lower intensity.

The potential of WF to challenge stereotypes of aggression and masculinity present in traditional football was also addressed by Loadman (2019) in an ethnographic study. The author conducted observational studies, including informal conversations with practitioners and document analysis, over 18

months at a leisure center in England. At the end of this period, the author suggests that the physiological benefits of sports practice are less tangible compared to social and psychological gains. The sport was identified as capable of developing feelings of community, friendships, and consideration for others. The positivity generated by the game and the increase in social involvement also promoted a greater interest in life.

### ***Promoting health through WF practice***

Few studies have investigated the effects of regular WF practice on the physical and mental health of healthy older adults. We can highlight the study by McEwan et al. (2019) that investigated the effects of regular WF practice on the physical and mental health of men over 50 years old. Nine individuals participated in a training program with one 60-minute session per week over 8 weeks. Although the authors showed a high retention rate of participants, with 70% of those who started maintaining participation in the sport, the study did not find significant changes in body composition, blood pressure, and cardiorespiratory capacity. Parameters related to mental health, such as self-esteem, social support, loneliness, and mental well-being, also did not show significant changes after the program. These results corroborated the findings of Reddy et al. (2017) in investigating a 12-week program conducted once a week for 60 minutes. The study did not find significant improvements in the health and cognition parameters of the population. The authors justified this result by the low training volume and indicated the need for more than 60 minutes of weekly practice to achieve these benefits.

Arnold et al. (2015) investigated the physical benefits promoted by regular WF practice with a higher training volume. The authors explored the effects of WF training over a period of 12 weeks, conducted once a week for two hours. Changes in physical and anthropometric parameters were analyzed in 10 men over 50 years old. The study showed a significant reduction in fat mass and percentage of body fat, and an increase in exhaustion time in an incremental exercise. Body mass, lean mass, and body mass index variables did not undergo significant changes. Based on these findings, the authors suggested that WF, when performed with a volume equal to or greater than 120 minutes per week, can be used as a public policy proposal seeking benefits for the physical, mental, and social health of the older population.

Finally, the study by Duncan et al. (2022) investigated the effects of 12 weeks of WF on body composition and physical capabilities of 30 healthy men between 60 and 80 years old. Sixty-minute sessions were conducted twice a week. The authors did not find significant changes in body fat percentage and hand grip strength compared to the control group. However, the study showed significant improvements in resistance, agility, and speed tests in WF practitioners compared to the control group. The

authors highlighted the potential of twice-weekly walking football practice for the older population in improving their physical capabilities.

### ***The WF practice by special populations***

In addition to the benefits for a healthy population, studies have been conducted to investigate the effects of regular WF practice in special groups. For example, the study by Capela et al. (2023) investigated patients with prostate cancer under androgen deprivation therapy. The study aimed to analyze the feasibility and impact of a WF program on the quality of life, cardiorespiratory capacity, muscle strength, and balance of this group. The program consisted of three 90-minute sessions per week. Participants were assessed before, during (week 8), and after (week 16) the interventions. The study showed a significant improvement in cardiorespiratory capacity, muscle strength, and balance of the participants. Additionally, it showed an 80% adherence rate among participants and an average pleasure rating of 4.5 out of a total of 5, based on participants' subjective evaluation of how enjoyable they found the sessions, measured using a Likert-type scale. Thus, the authors indicate the sport as a safe and enjoyable possibility for patients with prostate cancer undergoing hormonal therapy.

Another study investigated the effects of WF practice in patients with cognitive impairments such as dementia (McRae et al., 2022). The qualitative study investigated how WF sessions were proposed, implemented, and experienced by people with dementia and their relatives. The program consisted of 60-minute sessions divided into 10-minute blocks allowing for rotation among participants. Based on interviews with 18 individuals, the study showed a positive impact on social, physical, and motor behavior. Regular WF practice enabled the creation and development of positive memories. The smallest details were crucial for creating these memories, such as the coffee space, the trophy received as the highlight of the week, and the reception from family members and caregivers. Enthusiasm for training sessions was also reported as a positive aspect by caregivers, especially among participants over 70 years old who reported a lack of interest in life. Additionally, the sessions improved the mood and sleep pattern of the participants.

The effects of regular WF practice in populations with type 2 diabetes have also been investigated (Barbosa et al., 2020, 2021, 2023). The authors investigated the implementation of a WF program over nine months, with three sessions per week (60 minutes per session), conducted by middle-aged and older male patients with type 2 diabetes. In addition to the health benefits for participants and high adherence (Barbosa et al., 2020), the authors showed that the costs for implementing the program were low compared to implementing other physical activities (Barbosa et al., 2023). In this sense, the

authors recommend the implementation of WF programs for people with type 2 diabetes as a public policy strategy.

Regarding special situations, Zainudin et al. (2022) investigated the practice of WF by a group of Muslims who underwent intermittent fasting during the month of Ramadan. This religious practice is accompanied by changes in lifestyle, eating habits, and sleep patterns. WF was used as an alternative that was not as intense and could be practiced by any individual, regardless of fitness level, ability, and age. As a result, appropriate cardiovascular and metabolic stress responses were observed for populations with low fitness levels. Additionally, the study showed that WF was recognized as a fun activity that promotes social interactions, therefore, with the potential to encourage and sustain long-term participation. Similarly, Kammoun et al. (2022) investigated WF practice three times a week during Ramadan fasting and showed an improvement in parasympathetic system activity. According to the authors, WF practice during fasting is safe and might improve body composition, physical fitness, autonomic cardiac function, and physical fitness in middle-aged males.

## Discussion

The aim of this research was to conduct a comprehensive literature review on WF, encompassing qualitative and quantitative studies from various databases and languages while not limiting the publication year or the investigative theme. In total, we accessed 21 studies that investigated different aspects related to the sport, such as game demands, factors that influence initiating and maintaining participation, health promotion through sport, and the practice of WF by special populations. These findings are important to support proposals for programs for older adults, promoting their entry and maintenance in the sport, as well as health benefits.

Overall, we noticed that most studies were developed in the European context, specifically in the United Kingdom. This finding can be explained by its historical prominence in the creation and dissemination of the sport. According to Corepal et al. (2020), WF originated in England and has more than 800 events in the country. Many of these events have been made possible by the creation of the Walking Football Association in 2016, responsible for managing and promoting the sport. Scotland has also gained prominence since its introduction in 2012 and the establishment of Walking Football Scotland (WFS), a governing body that develops and promotes WF since 2017. Therefore, UK is leading in terms of organization and promotion of sports, as well as scientific production on the topic. Although these studies conducted in the UK have provided important insights into the sport, they also point to the need to investigate sport practice in other socio-cultural contexts. Among them, Brazil stands out

with a methodological proposal focused on participation of people who have had no previous experience with football (Barreira et al., 2023). In this context, organizers report that more than 60% of participants in the country are women.

The findings of our review draw attention to two factors: the low quantity of studies investigating methodological proposals of different sport organizations and the little interest in women's practice. In relation to the first one, we noticed the need to investigate the characteristics of the WF program. In addition to being unable to run, it is important to provide practical and pedagogical information to coaches for the development of training sessions. Regarding the second one, Cholerton et al. (2019) argue that 'coaches and walking football programs should look to diversify marketing to include both men and women's experiences of play'. Therefore, the proposal of a new sport may challenge the social constructions that historically limit women's access to sports.

The studies have shown the importance of this practice for the older population due to its ability to promote high adherence to sport. Reddy et al. (2017) showed that 63% of the study participants continued practicing the modality after the experimental protocol ended. Capela et al. (2023) found an adherence rate of 80% of participants in WF programs with prostate cancer. In this context, social aspects were identified as fundamental to the maintenance of practitioners in the sport. Several studies even suggest that the social benefits outweigh the physical health benefits for this population (Cholerton et al., 2022; Loadman, 2019). In this sense, the authors reinforce that encouragement given between team members and the acceptance of all ability levels are aspects that favor social development and maintenance in the sport.

Even though it is suggested that the social effects outweigh the physical and mental benefits, it is important to recognize the potential of this sport for the health of this population. For this, it is worth highlighting the need for a minimum amount of weekly practice for physical benefits. Studies indicate the need for at least 120 minutes of regular WF practice for at least 12 weeks to identify positive effects on the physical health of this population (Arnold et al., 2015; Duncan et al., 2022). Among these changes, the studies indicate a reduction in fat mass and body fat percentage (Arnold et al., 2015) and an increase in endurance, agility, and speed (Duncan et al., 2022). Furthermore, it is also worth highlighting the health benefits for special groups, such as the positive impact on social, physical, and motor behavior in people with cognitive impairments (McRae et al., 2022) and the improvement in body composition and physical fitness during Ramadan fasting (Kammoun et al., 2022). Therefore, both healthy older individuals and those with health limitations can benefit from the WF practice when performed regularly for more than 120 minutes per week.

## Strengths and limitations

This scoping review has significantly advanced the understanding and provided further discussions about WF. Among its strengths, it is important to highlight that the review was conducted following the guidelines of PRISMA-ScR (Tricco et al., 2018), evaluating five different databases and encompassing research in three distinct languages. Additionally, both qualitative and quantitative studies were included without limitation regarding the publication year. However, it is important to acknowledge that important studies on this topic may have been published in other databases, languages, or in different formats than scientific articles. Additionally, we did not use any procedures to assess the quality of the studies included in this review, which may have introduced some form of bias. By acknowledging these limitations, future research endeavors can aim to address these gaps, thereby contributing to a more comprehensive understanding of WF across different populations and contexts.

## Conclusion

This study compiled a comprehensive review of peer-reviewed literature on walking football. We found that the first publication on the topic dates to 2015, and research on the sport has been increasingly prominent, especially between 2020 and 2023. Much of its popularity is attributed to its high adherence rate, as over 60% of individuals that start playing WF continue their engagement in sport practice. However, men remain the main participants and the most studied population. We could not find any studies focused solely on women indicating the need for studies that investigate pedagogical practices that enable greater participation of this group that historically have been prohibited from playing football. Furthermore, the majority of studies were conducted in the European continent, indicating the need for more research in other sociocultural contexts. The studies indicated that WF can be considered a moderate-intensity activity, with players covering an average distance of 2,400–2,500 meters and staying on average at 80% of maximum heart rate. This intensity, coupled with a higher volume of training (greater than 120 minutes per week), can promote physical, mental, and social health benefits for this population. Still, research suggests that while the physiological advantages of sports participation are evident, the social and psychological gains are more pronounced.

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## Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## References

Andersson, H., Caspers, A., Godhe, M., Helge, T., Eriksen, J., Fransson, D., Ekblom-Bak, E., & Ekblom-Bak, E. (2023). Walking football for health – physiological response to playing and characteristics of the players. *Science and Medicine in Football*, 9(1), 1–8. <https://doi.org/10.1080/24733938.2023.2249426>

Arnold, J. T., Bruce-Low, S., & Sammut, L. (2015). The impact of 12 weeks walking football on health and fitness in males over 50 years of age. *BMJ Open Sport and Exercise Medicine*, 1(1). <https://doi.org/10.1136/bmjsem-2015-000048>

Barbosa, A., Brito, J., Costa, J., Figueiredo, P., Seabra, A., & Mendes, R. (2020). Feasibility and safety of a walking football program in middle-aged and older men with type 2 diabetes. *Progress in Cardiovascular Diseases*, 63(6), 786–791. <https://doi.org/10.1016/j.pcad.2020.06.014>

Barbosa, A., Brito, J., Figueiredo, P., Seabra, A., Ding, D., & Mendes, R. (2023). How much does it cost to implement a community-based walking football programme for patients with type 2 diabetes? *BMJ Open Sport and Exercise Medicine*, 9(2), e001549. <https://doi.org/10.1136/bmjsem-2023-001549>

Barbosa, A., Brito, J., Figueiredo, P., Seabra, A., & Mendes, R. (2021). Effectiveness of a walking football program for middle-aged and older men with type 2 diabetes: Protocol for a randomized controlled trial. *JMIR Research Protocols*, 10(11), e28554. <https://doi.org/10.2196/28554>

Barreira, J., da Silva Junior, J. E. P., & de Souza, C. P. (2024). Research on women's futsal: A scoping review. *Science and Medicine in Football*, 8(4), 405–417.

Barreira, J., Gomes, M. S. P., & Leme, R. (2023). Walking Football como uma possibilidade de prática do futebol para mulheres 60+. *Ludopédio*, 173(6), 1–5.

Barreira, J., Santos, F., Mazzei, L. C., & Galatti, L. R. (2022). The sport development and its socio-cultural and managerial aspects: An integrative review. *Motriz: Revista de Educação Física*, 28, e10220009722. <https://doi.org/10.1590/s1980-657420220097422>

Benedetti, T. R. B., Borges, L. J., Petroski, E. L., & Gonçalves, L. H. T. (2008). Atividade física e estado de saúde mental de idosos. *Revista de Saúde Pública*, 42(2), 302–307. <https://doi.org/10.1590/S0034-89102008005000007>

Capela, A., Antunes, P., Coelho, C. A., Garcia, C. L., Custódio, S., Amorim, R., Costa, T., Vilela, E., Teixeira, M., Amarelo, A., Silva, J., Joaquim, A., Viamonte, S., Brito, J., & Alves, A. J. (2023). Effects of walking football on adherence, safety, quality of life and physical fitness in patients with prostate cancer: Findings from the PROSTATA\_MOVE randomized controlled trial. *Frontiers in Oncology*, 13(13), 1129028. <https://doi.org/10.3389/fonc.2023.1129028>

Cholerton, R., Breckon, J., Butt, J., & Quirk, H. (2019). Experiences influencing walking football initiation in 55-to 75-year-old adults: A qualitative study. *Journal of Aging & Physical Activity*, 28(4), 521–533. <https://doi.org/10.1123/japa.2019-0123>

Cholerton, R., Butt, J., Quirk, H., & Breckon, J. (2022). Differences in older adults walking football initiation and maintenance influences across respondent characteristics: A cross-sectional survey. *Journal of Aging & Physical Activity*, 30(6), 936–949. <https://doi.org/10.1123/japa.2021-0305>

Cholerton, R., Quirk, H., Breckon, J., & Butt, J. (2021). Experiences and strategies influencing older adults to continue playing walking football. *Journal of Aging & Physical Activity*, 29(4), 573–585. <https://doi.org/10.1123/japa.2020-0058>

Corepal, R., Zhang, J. Y., Grover, S., Hubball, H., & Ashe, M. C. (2020). Walking soccer: A systematic review of a modified sport. *Scandinavian Journal of Medicine & Science in Sports*, 30(12), 2282–2290. <https://doi.org/10.1111/sms.13772>

Duncan, M. J., Mowle, S., Noon, M., Eyre, E., Clarke, N. D., Hill, M., Tallis, J., & Julin, M. (2022). The effect of 12-weeks recreational football (soccer) for health intervention on functional movement in older adults. *International Journal of Environmental Research and Public Health*, 19(20), 13625. <https://doi.org/10.3390/ijerph192013625>

Gamonale, J. M., Casañas, E. M., Beltrán, V. H., Calvo, L. G., León, K., & Jiménez, J. M. (2021). Fútbol caminando para personas mayores: revisión sistemática. *E-Balonmano com Revista de Ciencias del Deporte*, 17 (3), 195–210. <https://doi.org/10.17398/1885-7019.17.195>

Gomes, M., Figueiredo, D., Teixeira, L., Poveda, V., Paul, C., Santos-Silva, A., & Costa, E. (2017). Physical inactivity among older adults across Europe based on the SHARE database. *Age & Ageing*, 46(1), 71–77. <https://doi.org/10.1093/ageing/afw165>

Harper, L. D., Field, A., Corr, L. D., & Naughton, R. J. (2019). The physiological, physical, and biomechanical demands of walking football: Implications for exercise prescription and future research in older adults. *Journal of Aging & Physical Activity*, 28(3), 478–488. <https://doi.org/10.1123/japa.2019-0330>

Kammoun, N., Hidouri, S., Ghram, A., Ammar, A., Masmoudi, L., Driss, T., & Chlif, M. (2022). Effects of walking football during ramadan fasting on heart rate variability and physical fitness in healthy middle-aged males. *American Journal of Men's Health*, 16(3). <https://doi.org/10.1177/15579883221103418>

Kryger, K. O., Wang, A., Mehta, R., Impellizzeri, F. M., Massey, A., & McCall, A. (2021). Research on women's football: A scoping review. *Science and Medicine in Football*, 6 (5), 549–558. <https://doi.org/10.1080/24733938.2020.1868560>

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Impl Sci*, 5(1), 1–9. <https://doi.org/10.1186/1748-5908-5-69>

Loadman, A. (2019). 'He's running, Ref!' An ethnographic study of walking football. *Soccer and Society*, 20(4), 675–692. <https://doi.org/10.1080/14660970.2017.1396451>

Madsen, M., Krstrup, P., & Larsen, M. N. (2021). Exercise intensity during walking football for men and women aged 60+ in comparison to traditional small-sided football – a pilot study. *Managing Sport and Leisure*, 26(4), 259–267. <https://doi.org/10.1080/23750472.2020.1762508>

McEwan, G., Buchan, D., Cowan, D., Arthur, R., Sanderson, M., & Macrae, E. (2019). Recruiting older men to walking football: A pilot feasibility study. *Explore*, 15(3), 206–214. <https://doi.org/10.1016/j.explore.2018.12.001>

McPhee, J. S., French, D. P., Jackson, D., Nazroo, J., Pendleton, N., & Degens, H. (2016). Physical activity in older age: Perspectives for healthy ageing and frailty. *Biogerontology* [J], 17(3), 567–580. <https://doi.org/10.1007/s10522-016-9641-0>

McRae, R., Macrae, E., & Carlin, L. (2022). Modifying walking football for people living with dementia: Lessons for best practice. *Sport in Society*, 25(8), 1405–1418. <https://doi.org/10.1080/17430437.2020.1825383>

Mowle, S., Eyre, E., Noon, M., Tallis, J., & Duncan, M. J. (2022). "Football- It's in your blood"—lived experiences of undertaking recreational football for health in older adults. *International Journal of Environmental Research and Public Health*, 19(22), 14816. <https://doi.org/10.3390/ijerph192214816>

Murtagh, E. M., Murphy, M. H., & Boone-Heinonen, J. (2010). Walking: The first steps in cardiovascular disease prevention. *Current Opinion in Cardiology*, 25 (5), 490–496. <https://doi.org/10.1097/HCO.0b013e32833ce972>

Nielsen, G., Wikman, J. M., Jensen, C. J., Schmidt, J. F., Gliemann, L., & Andersen, T. R. (2014). Health promotion: The impact of beliefs of health benefits, social relations and enjoyment on exercise continuation. *Scandinavian Journal of Medicine & Science in Sports*, 24(S1), 66–75. <https://doi.org/10.1111/sms.12275>

Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan—a web and mobile app for systematic reviews. *Systematic Reviews*, 5(1), 1–10. <https://doi.org/10.1186/s13643-016-0384-4>

Peters, M. D., Marnie, C., Tricco, A. C., Pollock, D., Munn, Z., Alexander, L., McInerney, P., Godfrey, C. M., & Khalil, H. (2020). Updated methodological guidance for the conduct of scoping reviews. *JBI Evidence Synthesis*, 18(10), 2119–2126. <https://doi.org/10.1124/JBIES-20-00167>

Programa das Nações Unidas para o Desenvolvimento (Pnud). (2017). *Programa das Nações Unidas para o Desenvolvimento. Relatório de Desenvolvimento Humano Nacional - Movimento é Vida: Atividades Físicas e Esportivas para Todas as Pessoas: 2017*. PNUD.

Reddy, P., Dias, I., Holland, C., Campbell, N., Nagar, I., Connolly, L., Hubball, H., & Hubball, H. (2017). Walking football as sustainable exercise for older adults – a pilot investigation. *European Journal of Sport Science*, 17(5), 638–645. <https://doi.org/10.1080/17461391.2017.1298671>

Rhodes, R. E., & Sui, W. (2021). Physical activity maintenance: A critical narrative review and directions for future research. *Frontiers in Psychology*, 12, 725671. <https://doi.org/10.3389/fpsyg.2021.725671>

Salle, D. D. A., Newton, R. U., & Heil, D. P. (2021). Metabolic intensity and stepping cadence for middle-aged and older adults during competitive walking football. *International Journal of Exercise Science: Conference Proceedings*, 8(9). <https://doi.org/10.1249/01.mss.0000759100.62940.93>

Sport England. (2018). *Active lives adult survey*. <https://www.sportengland.org/media/13530/spotlight-on-older-adults.pdf>

Sundstrup, E., Jakobsen, M. D., Andersen, L. L., Andersen, T. R., Randers, M. B., Helge, J. W., Suetta, C., Schmidt, J. F., Bangsbo, J., Krstrup, P., & Aagaard, P. (2016). Positive effects of 1-year football and strength training on mechanical muscle function and functional capacity in elderly men. *European Journal of Applied Physiology*, 116(6), 1127–1138. <https://doi.org/10.1007/s00421-016-3368-0>

Tricco, A. C., Lillie, E., Zarin, W., O'brien, K., Colquhoun, H., Kastner, M., Levac, D., Ng, C., Sharpe, J. P., & Wilson, K., et al. (2016). A scoping review on the conduct and reporting of scoping reviews. *BioMed Central Medical Research Methodology*, 16(1), 1–10. <https://doi.org/10.1186/s12874-016-0116-4>

Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Straus, S. E., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., & Tunçalp, Ö. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, 169 (7), 467–473. <https://doi.org/10.7326/M18-0850>

United Nations. (2023). *World social report, 2023: Leaving no one behind in ageing world*. Retrieved from: [https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2023/01/WSR\\_2023\\_Chapter\\_Key\\_Messages.pdf](https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2023/01/WSR_2023_Chapter_Key_Messages.pdf)

Zainudin, S. B., Salle, D. D. A., & Aziz, A. R. (2022). Walking football during ramadan fasting for cardiometabolic and psychological health benefits to the physically challenged and aged populations. *Frontiers in Nutrition*, 8, 779863. <https://doi.org/10.3389/fnut.2021.779863>