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Protocol: Long Distance Walking and Psychosocial Health and Wellbeing: A Scoping Review

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Abstract

This is the protocol for a scoping review. The objectives are as follows: The aim of this scoping review is to assess the extent of the evidence of long-distance walking, defined as 20 km/12 miles or more, on physical and psychosocial outcomes in adults. Specific research questions are as follows: (1) What types of physical and psychosocial outcomes have been assessed in studies of long-distance walking in adults? (2) What types of study designs have been conducted on long-distance walking? (3) What characteristics of walking have been assessed in these studies, e.g. frequency, terrain, climate, companionship? (4) What types of people have been included in these studies (e.g., countries, age, gender or sex or other characteristics)?

Keywords: long-distance walking, prolonged walking, scoping review, pilgrimage walking, hiking

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Background

Physical activity has been practiced over the years as part of leisure, work, sports or transport. It has been associated with many physical and mental health benefits, the World Health Organization (WHO) recommends adults to have at least 150 minutes of moderate aerobic activity per week for health and wellbeing and that it is crucial for older adults to stay physically active in order to maintain their overall health, independence, and quality of life (WHO Guidelines on Physical Activity and Sedentary Behaviour, 2020).

Long-distance walking is a type of physical activity that refers to walking over extended durations or distances, typically beyond everyday walking. There isn't a single, universally agreed-upon definition of long distance walking as the term can vary depending on context (e.g., fitness and competitive events), however, it can range from six to hundreds of kilometers (Mau et al., 2021) and often involves sustained physical effort, such as multi-day hikes or treks as a way to connect with the environment, reflect and improve overall well-being (Sørensen & Høgh-Olesen, 2023).

Long distance walking has been practiced across many cultures and ages for multiple reasons, including transportation, exploration and spiritual believes such as historical

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pilgrimages across multiple religions (Coleman & Elsner, 1995). It has gained a lot of popularity in recent years with the opening of multiple new long-distance trails such as the Appalachian High Route in the US, the Cammino Retico hiking trail in Italy and the Palmilhar Portugal trail in Portugal.

Reviews have shown that walking has many health benefits (Johansson et al., 2011; Kelly et al., 2018;) in improving physical function and health-related quality of life (Blacklock et al., 2010), for people of all ages and health statuses, including people post-injuries (Moore et al., 2022) and people with cognitive impairment. Some studies have suggested that long-distance walking has positive physical and mental health benefits such as improving cardiovascular health, lowering the risk of type 2 diabetes (How Much Walking Is Too Much?, 2024), helping regulate cortisol levels (de Souza et al., 2019), prolonging life span (Bull et al., 2020) and may yield additional benefits such as self-esteem from overcoming a challenge (Mayer & Lukács, 2021) as well as improving social health when performed as a group activity (Yang et al., 2018).

To our knowledge, there is only one scoping review on how long distance walking is related to mental health in adults (Mau et al., 2021) and this review included studies with distances as short as 6 km which may not be applicable to long-distance walking. However, there's no systematic summary on the impact of long-distance walking on health outcomes. Whilst we recognize that there are many people for whom a distance of a mile (1.6 km) is a challenge and an achievement when completed, this scoping review aims to assess the extent of the evidence of long distance walking, defined as 20 km/12 miles or more on physical and psychosocial health in adults, as well as to describe features of long distance walking such as frequency, speed and terrain.

Objectives

- What types of physical and psychosocial outcomes have been assessed in studies of long-distance walking in adults?
- What types of study designs have been conducted on long-distance walking?
- What characteristics of walking have been assessed in these studies, e.g. frequency, terrain, climate, companionship?
- What types of people have been included in these studies (e.g., countries, age, gender or sex or other characteristics)?

Registration

The title registration form (TRF) of this scoping review is registered with Campbell Systematic Reviews. This protocol is registered on Open Science Framework (OSF) (Sabri et al., 2025)

Methods

Protocol Design

This scoping review follows the JBI scoping review methodology for evidence synthesis and uses Arksey and O'Malley framework. This scoping review protocol is reported according to the PRISMA-ScR guidelines (10.1.3 The Scoping Review Framework - JBI Manual for Evidence Synthesis - JBI Global Wiki, n.d.) and the Campbell Standards guidelines (Aloe et al., 2024).

We followed the JBI methodology because it is a well-established approach for scoping reviews and aligns with our goal of systematically mapping the available evidence about long-distance walking.

Table 1.

Eligibility Criteria Using PCC Framework

	Inclusion	Exclusion
P: Population	- Adults aged 18 years or older. - The median of population age is 18 years or older.	- Children (under 18 years of age).
C: Context	- Long-distance walking of 20 km or more in one single day. - Walking for a duration of over 4 hours (5 km/hour) in one single day.	- Walking less than 20 km in one single day. - Walking for a duration less than 4 hours (5 km/hour) in one single day.
C: Concept	- Leisure walking such as hikes, treks and pilgrimages.	- Occupational walking: any type of walking that is mandatory or part of a routine such as military activities. - Running.
Study design	- Study designs with defined methods including quantitative and qualitative studies for assessing long distance walking outcomes.	- Commentaries, opinion articles and personal narratives.
Setting	- Any setting	- N/A

Eligibility Criteria

We will use population, context and concept framework to describe eligibility criteria (Table 1).

We will include primary studies that assess physical, social and mental health and wellbeing outcomes of long-distance walking in any setting, defined as 20 km/12 miles in a single session (as suggested by the co-authors HW and TH based on their experience as long distance walkers). If the reported distance varies across groups, we will assess the group that is walking 20 km or more if the data is disaggregated, if data is not disaggregated, we will contact authors for more information. If distance is not reported, a walking duration of over 4 hours (5 km/hour) in a single session will be eligible for inclusion. Example outcomes include cardiovascular health, blood pressure, diabetes risk, injury, immune response, and mental health and well-being (e.g., loneliness, stress), in adults aged 18 years and older. If age varies across groups, a median of 18 years or older will be included. We will exclude studies involving any sort of occupational walking such as military activities, because these are likely to be required, part of a routine and carried out under different conditions from leisure walking, which is the focus of this question.

We will be including all study designs with defined methods including quantitative and qualitative studies for assessing outcomes following exposure to long distance walking, but we will exclude commentaries or opinion articles. We will exclude personal narratives.

Identifying Studies

The search strategy for this scoping review will be developed in consultation with a librarian scientist (DS) with expertise in systematic review searches. We will use a combination of indexed terms, database-specific subject headings (including MeSH), and free-text keywords. The systematic search will be conducted for the following databases:

Ovid MEDLINE, Ovid Embase, Ovid PsycINFO, EBSCO CINAHL, Clarivate Web of Science (SCI-Expanded, SSCI, CPCI-S, CPCI-SSH, ESCI), Epistemonikos and ProQuest ASSIA. Please see Appendix A for our search strategy. Keywords to develop our search strategy will include: “Walk”, “hike”, “tramp”, “pilgrimage”, “long distance”, “distance walking”, “nordic walking” and “wayfaring”. For full search strategy, see Appendix A.

Searching Other Resources

We will search reference lists of included studies in relevant reviews and unpublished studies or reports that satisfy our eligibility criteria. We will do a forward and backward reference and citation search for our included studies using the CitationChaser (Haddaway et al., 2021).

We will also search the websites of organizations and clubs related to long-distance walking for grey literature to identify unpublished reports, policy papers, and any other relevant materials:

- **Walkable Alberta** (https://www.albertahealthservices.ca/info/Page7282.aspx) – We will review their publications and resources for reports on pedestrian infrastructure, walking initiatives, and community programs related to long-distance walking.
- **America Walks** (https://americawalks.org) – We will explore their research reports, advocacy materials, and case studies related to pedestrian-friendly policies and long-distance walking trends.
- **Walk21** (https://www.walk21.com) – We will examine their conference proceedings and research reports that discuss the benefits and challenges of long-distance walking.
- **Long Distance Walkers Association (LDWA)** (https://ldwa.org.uk/) –

We will search for reports, newsletters, and unpublished materials related to long-distance walking as LDWA provides insights into endurance walking events, route documentation, and community participation.

- **Ramblers Wellbeing Walks** (https://www.ramblers.org.uk/go-walking/wellbeing-walks) – We will explore research reports, policy documents, and wellbeing initiatives related to walking for health.
- **Paths for All – Health Walks** (https://www.pathsforall.org.uk/health-walks) – We will search for program evaluations, reports, and unpublished studies on walking initiatives.

Grey literature will also be identified through a google search of the terms “long distance” AND (walk* OR hike*) AND (research OR study OR evaluat* OR assess). The first two pages of the google search results will be screened for relevant publication.

Study Selection

We will select studies based on our inclusion/exclusion criteria mentioned in the Eligibility Criteria section. The search results will be exported to a reference manager software and duplicates will be removed. After removing duplicates, the citations will be screened using Covidence (Covidence - Better Systematic Review Management, n.d.) as a screening tool. We will use priority screening to screen the results at the title and abstract stage. We will develop training slides with practice examples to train reviewers on operationalizing and applying the eligibility criteria. Two independent reviewers will screen titles and abstracts, any disagreement will be solved by discussion to reach

consensus. If consensus can't be reached; a third reviewer will be consulted. Studies that meet the inclusion criteria will be selected for full-text review which will also be screened by two independent reviewers; any discrepancies will be solved by discussion. If consensus cannot be reached, a third person will be consulted.

Charting the Data

A charting data form will be created and piloted on a sample of studies based on our objectives and research questions, including citation information for the included studies such as author, year and place of publication, a description of the study design, the population, type of walk (alone, organized group, couple, with friends or other e.g with dog), speed, frequency, distance and duration of the walk, the walk setting, past experience with long distance walking and outcomes including physical, mental and social outcomes and which tools were used. If a study has multiple manuscripts, we will use all available information for data extraction. The extracted data will be summarized in descriptive tables and figures.

Collating, Summarizing, and Reporting the Results

We will be reporting this scoping review results using the checklist (PRISMA-ScR) Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews and we will also be reporting the results of the screening using the PRISMA flow chart.

We will have a summary table with the types of outcomes (physical, social or mental), the scales and tools that are used and how they were validated. We will also capture the types of study designs and how they were stated by authors (case series, randomized controlled trials (RCT), non-randomized controlled trials (NRSI) and whether they are prospective or retrospective). We will also document the walking characteristics including time, speed, frequency, setting, climate and companionship and any measure changes from baseline at the timepoint as well as any lifestyle changes before and after the walk. We will also document population characteristics including age, gender, sex, countries, occupation, education, socioeconomic status and race.

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Preliminary Timeframe

Approximate date for submission of the scoping review: April 2025.

Supplemental Material

Supplemental material for this article is available online.

References

10. 1.3 The scoping review framework—JBI Manual for Evidence Synthesis—JBI Global Wiki(n.d.). Retrieved December 20, 2024, from. https://jbi-global-wiki.refined.site/space/MANUAL/355862599/10.1.3+The+scoping+review+framework

Aloe, A. M., Dewidar, O., Hennessy, E. A., Pigott, T., Stewart, G., Welch, V., Wilson, D. B., & Campbell MECCIR Wor, & king Group. (2024). Campbell standards: Modernizing Campbell's methodologic expectations for Campbell Collaboration intervention reviews (MECCIR). *Campbell Systematic Reviews*, *20*(4), e1445. https://doi.org/10.1002/cl2.1445

Blacklock, R., Rhodes, R., Blanchard, C., & Gaul, C. (2010). Effects of exercise intensity and self-efficacy on state anxiety with breast cancer survivors. *Oncology Nursing Forum*, *37*(2), 206–212. https://doi.org/10.1188/10.ONF.206-212

Bull, F. C., Al-Ansari, S. S., Biddle, S., Borodulin, K., Buman, M. P., Cardon, G., Carty, C., Chaput, J.-P., Chastin, S., Chou, R., Dempsey, P. C., DiPietro, L., Ekelund, U., Firth, J., Friedenreich, C. M., Garcia, L., Gichu, M., Jago, R., Katzmarzyk, P. T., … Willumsen, J. F. (2020). World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British Journal of Sports Medicine*, *54*(24), 1451–1462. https://doi.org/10.1136/bjsports-2020-102955

Coleman, S., & Elsner, J. (1995). *Pilgrimage: Past and present in the world religions*. Harvard University Press.

Covidence—Better systematic review management. (n.d.). Retrieved November 25, 2024, from. https://www.covidence.org/

de Souza, H. S., Jardim, T. V., Barroso, W. K. S., de Oliveira Vitorino, P. V., Souza, A. L. L., & Jardim, P. C. V. (2019). Hormonal

assessment of participants in a long distance walk. *Diabetology & Metabolic Syndrome*, *11*(1), 19. https://doi.org/10.1186/s13098-019-0414-1

Haddaway, N. R., Grainger, M. J., & Gray, C. T. (2021). Citationchaser: An R package for forward and backward citations chasing in academic searching (Version 0.0.3). [Computer software]. https://doi.org/10.5281/zenodo.4543513

How Much Walking Is Too Much? (2024, April 10). EverydayHealth.Com. https://www.everydayhealth.com/fitness/how-much-walking-is-too-much/

Johansson, M., Hartig, T., & Staats, H. (2011). Psychological benefits of walking: Moderation by company and outdoor environment. *Applied Psychology: Health and Well-Being*, *3*(3), 261–280. https://doi.org/10.1111/j.1758-0854.2011.01051.x

Kelly, P., Williamson, C., Niven, A. G., Hunter, R., Mutrie, N., & Richards, J. (2018). Walking on sunshine: Scoping review of the evidence for walking and mental health. *British Journal of Sports Medicine*, *52*(12), 800–806. https://doi.org/10.1136/bjsports-2017-098827

Mau, M., Aaby, A., Klausen, S. H., & Roessler, K. K. (2021). Are long-distance walks therapeutic? A systematic scoping review of the conceptualization of long-distance walking and its relation to mental health. *International Journal of Environmental Research and Public Health*, *18*(15), 7741. https://doi.org/10.3390/ijerph18157741

Mayer, K., & Lukács, A. (2021). Motivation and mental well-being of long-distance hikers: A quantitative and qualitative approach. *Heliyon*, *7*(5), e06960. https://doi.org/10.1016/j.heliyon.2021.e06960

Moore, S. A., Boyne, P., Fulk, G., Verheyden, G., & Fini, N. A. (2022). Walk the talk: Current evidence for walking recovery after stroke, future pathways and a mission for research and clinical practice. *Stroke*, *53*(11), 3494–3505. https://doi.org/10.1161/STROKEAHA.122.038956

Sabri, H., Ghogomu, E., Barbeau, V., & Welch, V. (2025). Long distance walking and psychosocial health and wellbeing: A scoping review. https://osf.io/ts2k6

Sørensen, A., & Høgh-Olesen, H. (2023). Walking for well-being. Exploring the phenomenology of modern pilgrimage. *Culture & Psychology*, *29*(1), 27–44. https://doi.org/10.1177/1354067X221131354

WHO guidelines on physical activity and sedentary behaviour (1st ed.). (2020). World Health Organization.

Yang, P., Dai, S., Xu, H., & Ju, P. (2018). Perceived environmental, individual and social factors of long-distance collective walking in cities. *International Journal of Environmental Research and Public Health*, *15*(11), 2458. https://doi.org/10.3390/ijerph15112458