International Platform of Registered Systematic Review and Meta-analysis Protocols

INPLASY

A Systematic Review of Walkability Research in Historic Centres: Toward an Integrated Analytical Understanding

INPLASY202640066
doi: 10.37766/inplasy2026.4.0066
Received: 18 April 2026
Published: 18 April 2026

Chen, F; Luo, Z.

Corresponding author:
Zhengzheng Luo

zhengzheng.luo2@unibo.it

Author Affiliation:
Department of Architecture, University of Bologna, Bologna, Italy.

ADMINISTRATIVE INFORMATION

Support - No external financial support was received for this review.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202640066

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 April 2026 and was last updated on 18 April 2026.

INTRODUCTION

Review question / Objective This systematic review aims to synthesise the existing body of research on walkability in historic centres and to clarify the current analytical structure of this field. Specifically, the review addresses four questions: (1) What are the primary pedestrian challenges encountered in historic centres? (2) Where are the main spaces addressed in walkability studies of historic centres? (3) Who are the main target groups considered in these studies? (4) How can walkability in historic centres be effectively analysed?

Rationale Although walkability has been widely studied in general urban contexts, research specifically focused on historic centres remains fragmented. Existing studies often address particular problems, spatial scales, users, or methods in isolation, which makes it difficult to develop a more comprehensive understanding of this field. Historic centres have distinctive built-environment characteristics, strong heritage value, and specific mobility conditions that differ from ordinary urban areas. Therefore, a systematic review is needed to synthesise the current evidence, identify research gaps, and support the development of a clearer analytical framework for walkability research in historic centres.

Condition being studied The review focuses on walkability in historic centres, including the main pedestrian challenges, spatial scales, target groups, and research methods addressed in empirical studies of historic urban and heritage contexts.

METHODS

Search strategy The search strategy was developed around two concept groups: Topic 1 (walkability-related terms) and Topic 2 (historic-centre-related terms). The search was limited to studies published between January 2006 and March 2026. Only studies written in English were considered. The search syntax was adapted to the rules of each database. The following databases

were searched: Web of Science, Scopus, Taylor & Francis Online, and SAGE Journals. Additional manual searches and cross-reference searches were also conducted to improve completeness.
Web of Science:
TS=((walk* OR pedestrian* OR "physical activit*" OR mobility OR accessibility)
AND ("historic* cit*" OR "historic* cent*" OR "historic* district*" OR "urban heritage*" OR "cultur* heritage*" OR "old* cit*" OR "ancient cit*"))
Filters applied: English language; publication years 2006–2026.
Scopus:
TITLE-ABS-KEY((walk* OR pedestrian* OR "physical activit*" OR mobility OR accessibility)
AND ("historic* cit*" OR "historic* cent*" OR "historic* district*" OR "urban heritage*" OR "cultur* heritage*" OR "old* cit*" OR "ancient cit*"))
Filters applied: English language; publication years 2006–2026.
Taylor & Francis Online:
All fields: (walk* OR pedestrian* OR "physical activit*" OR mobility OR accessibility)
AND ("historic* cit*" OR "historic* cent*" OR "historic* district*" OR "urban heritage*" OR "cultur* heritage*" OR "old* cit*" OR "ancient cit*")
Filters applied: English language; publication years 2006–2026.
SAGE Journals:
All fields: (walk* OR pedestrian* OR "physical activit*" OR mobility OR accessibility) AND ("historic* cit*" OR "historic* cent*" OR "historic* district*" OR "urban heritage*" OR "cultur* heritage*" OR "old* cit*" OR "ancient cit*")
Filters applied: English language; publication years 2006–2026.
To ensure completeness, the review also included manual searches using restricted topic keywords in the four selected databases and cross-reference searches based on the reference lists of the included studies.

Participant or population Because this is a literature-based systematic review, the unit of analysis is the study rather than individual participants. Eligible studies are empirical studies examining walkability in historic centres, historic urban areas, heritage areas, historic districts, old cities, or ancient cities. The included studies may involve different target groups, such as pedestrians, tourists, residents, older adults, children, experts, website users, and people with reduced mobility. Studies conducted in ordinary urban areas without a clear historic-centre or heritage context will be excluded.

Intervention Not applicable. This review does not assess interventions or treatment effects. It synthesises empirical research on walkability in historic centres.

Comparator Not applicable. This review does not compare interventions, treatment groups, or exposure groups in the conventional PICO sense.

Study designs to be included Peer-reviewed journal articles and conference papers reporting empirical research will be included.

Eligibility criteria Inclusion criteria:
1. Studies published between 2006-2026.
2. Peer-reviewed journal articles and conference papers.
3. Full-text studies.
4. Empirical studies.
Exclusion criteria:
1. Non-peer reviewed studies.
2. Books, book chapters, book reviews, review articles, meeting abstracts, and research notes.
3. Irrelevant research content and results.
4. Studies not in the English language.

Information sources The bibliographic databases to be searched are Web of Science, Scopus, Taylor & Francis Online, and SAGE Journals. Additional sources include manual searches conducted within these databases using restricted topic keywords and cross-reference searches based on the reference lists of the includedstudies.

Main outcome(s) The main outcomes of this review are the coded distributions of: (1) pedestrian challenges in historic centres; (2) spatial scales addressed in walkability studies; (3) target groups considered in these studies; and (4) research methods used to analyse walkability in historic centres.

Additional outcome(s) Additional outcomes include: (1) temporal distribution of the selected studies; (2) publication source distribution; (3) geographical distribution of study cases; (4) keyword co-occurrence patterns; and (5) exploratory associations among the coded dimensions of the four research questions.

Data management Search results from the four databases will be exported, merged, and screened after duplicate removal. Titles and abstracts will be screened first, followed by full-text eligibility assessment. Full-text studies will then be coded in relation to the four research questions. The selected publications and coded content will be organised in NVivo 11. Bibliometric mapping will be conducted in VOSviewer, and statistical analysis will be performed in SPSS. Two

researchers will participate in the coding process, and the coding results will be checked and revised after coding is completed. Disagreements will be resolved through discussion and re-checking of the full text.

Quality assessment / Risk of bias analysis A formal risk-of-bias assessment tool is not planned for this review. The review is designed to map and synthesise research characteristics, themes, scales, target groups, and methods across heterogeneous empirical studies rather than to estimate pooled intervention effects. Methodological characteristics of the included studies will be documented during data extraction and synthesis.

Strategy of data synthesis The review will use a mixed qualitative-descriptive synthesis strategy. First, PRISMA will guide study identification, screening, eligibility assessment, and inclusion. Second, bibliometric analysis will be used to examine publication trends, publication sources, geographical distribution, and keyword co-occurrence patterns. Third, content analysis will be applied to code the selected studies according to four research questions: pedestrian challenges, spatial scales, target groups, and research methods. Frequency analysis will then be used to summarise the coded results. Finally, an exploratory Pearson correlation analysis based on a binary coding matrix will be conducted to examine potential associations among the coded dimensions. No formal meta-analysis is planned.

Subgroup analysis No formal subgroup meta-analysis is planned. Comparative synthesis will instead be organised across the four research questions and their coded dimensions, including different categories of pedestrian challenges, spatial scales, target groups, and research methods.

Sensitivity analysis No formal sensitivity analysis is planned. If any methodological deviations or eligibility adjustments become necessary during the review process, they will be documented transparently in the final manuscript.

Language restriction Only studies published in English will be included.

Country(ies) involved Italy.

Keywords Historic centres, Walkability, Walking behavior, Built environment, Systematic literature review.

Contributions of each author

Author 1 - Fangyu Chen - Author 1: conceived the review, designed the review framework, conducted the literature search, screening, coding, analysis, and drafting.Author 1 drafted the manuscript.
Email: fangyu.chen2@unibo.it
Author 2 - Zhengzheng Luo - Author 2: contributed to the review design, verified coding and interpretation, and critically revised the protocol/ manuscript.
Email: zhengzheng.luo2@unibo.it