

INPLASY202360064

doi: 10.37766/inplasy2023.6.0064

Received: 20 June 2023

Published: 20 June 2023

Corresponding author:

Joel Carmichael

jcarmichael@center4spine.com

Author Affiliation:

University of Colorado School of Medicine.

Carmichael, J¹; Stuber, K²; Pohlman, K³; Ferguson, A⁴; Maiers, M⁵.**ADMINISTRATIVE INFORMATION****Support** - Pending.**Review Stage at time of this submission** - Piloting of the study selection process.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY202360064**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 June 2023 and was last updated on 20 June 2023.**INTRODUCTION**

Review question / Objective The primary objective of this scoping review is to map the literature reporting on chiropractic clinical registries. This scoping review will follow the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews) reporting guideline.¹ The review protocol will be registered through INPLASY (International Platform of Registered Systematic Review and Meta-analysis Protocols) (www.inplasy.com).

Background Clinical outcomes registries form vital, harvestable databases that drive research to improve patient care and quality of life,² clinical care guidelines, and healthcare policy.³ Using automated data collection systems, clinical outcomes registries are a growing source of data across healthcare disciplines worldwide,⁴⁻⁶ providing the foundations for further research as well as opportunities for national and international research collaborations.⁴ Reliable clinical registries

provide quantifiable evidence for care delivered in real-world healthcare settings.⁷ The research derived from these registries can inform providers and healthcare systems to improve clinical performance and deliver better health outcomes.⁸ Moreover, registries constitute a valuable resource for research and clinical education.

Rationale The degree to which the chiropractic profession has engaged in the formation and sustainable operation of clinical data registries is unknown. To our knowledge chiropractic clinical registries have not been studied, mapped, or summarized in the literature.

Concept: The core concept of this scoping review is the mapping of the literature reporting on clinical chiropractic registries.

METHODS

Strategy of data synthesis A spreadsheet of variables pertinent to the primary objective of this review was developed and will be used to extract relevant data from each eligible, full-text

publication. A pilot test of the extraction process will be conducted for the first five sources to refine the process and ensure fidelity to the research objective. The bibliographies of eligible full-text articles will be reviewed by the authors to identify additional studies that may meet the inclusion criteria. A complete list of all citations will be retained automatically in Covidence® (www.covidence.org; Melbourne, Australia) and will be exported to EndNote® (www.clarivate.com; Chandler, Arizona, USA) for use by the entire research team for analysis.

Eligibility criteria Eligible studies will report on registries used to collect information on chiropractic care. Registries of interest may include the cataloguing of specific conditions or diagnoses, as well as demographic, treatment, and/or clinical outcomes data for patients who have undergone clinical management by chiropractors.

Studies will be included for analysis if the following inclusion criteria are satisfied: (1) The study is a report on a patient data registry; and (2) the registry pertains to chiropractic patients. Studies will be excluded if: (1) they are not original articles (i.e., editorials or letters to the editor); (2) registry data are pooled with data from patients who have not received chiropractic care. No age or language restrictions will be applied to the search strategy.

Source of evidence screening and selection The following electronic databases will be searched from inception until June 15, 2023: MEDLINE (Ovid), CINAHL (EBSCO), Index to Chiropractic Literature (ICL), Alt Healthwatch (EBSCO), and SPORTDiscus (EBSCO). A health sciences librarian will define the search strategy in collaboration with the research team. A second librarian will peer-review the search strategy.¹⁰ The following is a sample search strategy applied to MEDLINE (Ovid):

1. Manipulation, Chiropractic/ or Manipulation, orthopedic/ or Chiropractic/
2. Manipulation, Spinal/
3. "chiropract*" .ab,kf,kw,ti.
4. 1 or 2 or 3
5. exp Registries/
6. routinely collected health data/
7. Database Management Systems/
8. 5 or 6 or 7 or 8
9. 4 and 9.

Data management Guided by our primary objective two reviewers (K.S. and J.C.) working independently will conduct title and abstract screening to identify studies that meet the selection criteria. Any disagreements will be

resolved through weekly discussion and consensus, with a third reviewer (M.M.) serving as a referee if necessary. Title and abstract screening will be initiated with a random sample of five titles/abstracts. Selection criteria will be judged to be acceptable based on an 80% agreement threshold, with further refinement of the criteria if necessary, using a second set of five titles/abstracts. No formal source selection tool will be used for this scoping review. Subsequent full-text review and reviewer agreement will yield the final pool of articles for data extraction and analysis. Full-text articles will be retrieved and analyzed by two reviewers (K.S. and J.C.). The following information will be extracted from the included studies:

1. Authors' names and year of publication
2. Country/Countries of origin
3. Date of registry inception
4. Health condition(s) catalogued
5. Types of assessment or chiropractic treatment (if specified) catalogued
6. Clinical treatment outcome(s) recorded (if any)
7. Years of operation since inception
8. Number of chiropractic patients enrolled in the registry
9. Date the registry stopped collecting data and/or became defunct
10. Duration of data collection
11. Explanation for closure of the registry.

Reporting results / Analysis of the evidence

Given the broad nature and mapping objective of this scoping review neither a risk of bias analysis nor a sensitivity analysis is planned. During the data extraction process relevant study findings will be categorized.

The authors will use descriptive statistics to analyze extracted data. The purpose and intended outputs for the published registries will be studied. The duration of data collection and circumstances of registry closure will, if applicable, be noted.

Presentation of the results

The presentation of results will consider the breadth and overall success of chiropractic registries reported in the extracted full-text articles. The performance of these registries with respect to current best practices in registry development and administration are of particular interest and will be discussed accordingly.

A summary map of the extracted articles will be presented in tabular form in Table 1.

Total registries identified will be included. Extracted data reporting the characteristics of each chiropractic registry will also be summarized graphically.

Language restriction None.

Country(ies) involved This scoping review originated in the United States and Canada.

Other relevant information The author block combines expertise from four chiropractic research and education programs, including Northwestern Health Sciences University, Parker University, Canadian Memorial Chiropractic College, and the Universidad Central del Caribe with contributing literature search expertise from the United States and Canada.

Keywords Registry, Chiropractic outcomes, Clinical outcomes database, Patient-reported outcomes, Chiropractic registry.

Dissemination plans The manuscript will be submitted for publication in a peer-reviewed chiropractic journal. Blog posts and/or notices in Chiropractic Association news and posts to social media will be used to increase awareness of the publication.

Contributions of each author

Author 1 - Joel Carmichael - Author 1 - Article reviewer. Data extraction and analysis. Manuscript preparation. Corresponding author.

Email: joel.carmichael@cuanschultz.edu

Author 2 - Kent Stuber - Author 2 - Article reviewer. Data extraction and analysis. Manuscript preparation.

Email: kentstuber@parker.edu

Author 3 - Katherine Pohlman - Author 3 - Data analysis. Manuscript preparation.

Email: kpohlman@parker.edu

Author 4 - Amy Ferguson - Author 4 - Research librarian and scoping review strategist. Manuscript preparation (search methodology).

Email: amyferguson@parker.edu

Author 5 - Michele Maiers - Author 5 - Conceived the scoping review. Article review referee. Data analysis. Manuscript preparation.

Email: mmaiers@nwhealth.edu