

INPLASY PROTOCOL

To cite: Huang et al. 24-hour movement behaviours research in Chinese people: a systematic scoping review. Inplasy protocol 202320014. doi: 10.37766/inplasy2023.2.0014

Received: 03 February 2023

Published: 03 February 2023

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Support: None.

Review Stage at time of this submission: Piloting of the study selection process.

Conflicts of interest:
None declared.

24-hour movement behaviours research in Chinese people: a systematic scoping review

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Review question / Objective: What are the current research status and evidence base concerning 24-hour movement behaviours research in Chinese people?

Background: 24-hour movement behaviours, consisting of physical activity, sedentary behaviour and sleep, have been shown to be associated with a variety of health outcome in populations (regardless of sex, age, race and nationality). Most studies on 24-hour movement behaviours are conducted in western countries populations, such as Australia and Canada. Despite increasing research interest in 24-hour movement behaviours research in China, there is a lack of summary for 24-hour movement behaviours research in Chinese people. On the basis of these, this scoping review will be to summarise the current evidence from 24-hour movement behaviours literature in Chinese people. Furthermore, this scoping review will be to direct future research needs.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 03 February 2023 and was last updated on 03 February 2023 (registration number INPLASY202320014).

INTRODUCTION

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Rationale: This scoping review can help advance knowledge in the research field, foster further research based on Chinese people, indicate future research directions and facilitate health promotion. Evidence synthesis is a necessary base for updates and refinements for the international 24-hour movement guidelines alongside the development of Chinese 24-hour movement guidelines.

METHODS

Strategy of data synthesis: A PRISMA flow diagram will be created to illustrate the progress of studies through the selection process and screening (indicating the results from the search, removal of duplicate citations, and so on). Study characteristics including but not limited to year of publication, published journal, published language, study sites, study design, study population, measurement, main independent and outcomes, as well as statistical analysis will be extracted and reported. Then, the included studies will be classified into the following domains, (1) methods; (2) composition (e.g., prevalence and trend); (3) outcomes; (4) determinants and (5) interventions, according to the Viable Integrative Time-use Research Framework. Descriptive statistics will be used to report the summarised characteristics of the included studies. On the basis of these, research gaps and research needs will be proposed.

Eligibility criteria: (1) Quantitative studies that only included Chinese population(s) as study participants.
(2) Quantitative studies that were published in either English or Chinese.
(3) Quantitative studies that collected data on physical activity, sedentary behaviour and sleep, and analysed them in

combination (e.g., using compositional data analysis or 24-hour movement guidelines).

Source of evidence screening and selection: This scoping review was performed based on the York methodology outlined by Arksey and O'Malley, and according to the Guidance for Conducting Systematic Scoping Reviews. With the aim of identifying research gaps and mapping out the existing literature by examining the extent and nature of said research, this review was conducted as a scoping review.

Data management: XData management will be conducted by Endnote and Microsoft Excel.

Language restriction: Chinese and English.

Country(ies) involved: Australia and China.

Keywords: Movement behaviour; 24-hour movement guidelines; Chinese; Literature synthesis.

Contributions of each author:

Author 1 - Jiafu Huang - Author 1 drafted the manuscript.

Author 2 - Aamir Raof - Author 2 drafted the manuscript.

Author 3 - Huiying Fan - Author 3 participated in literature search, literature.

Author 4 - Lijuan Wang - Author 4 reviewed and edited the manuscript.

Author 5 - Sitong Chen - Author 5 conceptualized the study design, participated in literature search, literature selection, data extraction and drafted the manuscript.

Author 6 - Chunxiao Li - Author 6 conceptualized the study design, participated in literature search, literature selection, data extraction and drafted the manuscript.