Nudges as Behavior Change Interventions to Improve Health and Well-Being. Protocol for a scoping review

Nudges como intervenciones de cambio de comportamiento para mejorar la salud y el bienestar: Protocolo de una revisión panorámica

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Abstract

Objective

Our objective is to map and summarize the evidence on nudges that assess behavior change interventions to improve health and well-being.

Design

This is the protocol for a scoping review

Data source

A comprehensive search will be conducted on Cochrane database of systematic reviews (CDSR); Database of Abstracts of Reviews of Effectiveness (DARE); HTA Database; PubMed; LILACS; CINAHL; PsycINFO; EMBASE; EPPI-Centre Evidence Library; WHO institutional Repository for information Sharing; NICE public health guidelines and systematic reviews; through an advanced search in the Epistemonikos platform. The search will cover the period until the day before this protocol is submitted to a journal.

Eligibility criteria for study selection and methods

Only systematic reviews (SR) will be included, which are operationally defined as any secondary research that includes only primary clinical studies, with the above search strategy applied in at least two databases that have assessed the use of nudges related to health, including SR of broader scope. Primary studies, clinical practice guides, abstracts and other evidence summary designs will be excluded.

The electronic search results will be added according to the inclusion criteria. This manuscript will follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for scoping reviews (PRISMA-ScR) [10]

Ethics and Dissemination

Ethical approval is deemed unnecessary. The results of this review will be widely disseminated through peer reviewed publications, social networks and traditional media.

Keywords

Nudges, Behavior Change, scoping review, Health and Well-being

Introduction

Behavior change is key to achieve the Sustainable Development Goals for health and well-being. Many global threats to human health and well-being can only be resolved if people, organizations and governments change their behavior [1], [2].

Daily, people take a series of decisions that have an impact on their own health and the well-being of others [3]. These decisions often are “risk behaviors” for health, such as sedentarism, alcohol abuse, smoking or not getting vaccinated, which contribute to the development of chronic diseases, morbidity and premature mortality associated with high health costs. [4] Over the last years, there has been an increase in the use of behavior change techniques focused on the Sustainable Development Goals and on support regarding the pandemic [5], especially on “nudging” people towards getting vaccinated, using masks and keeping social distance [6]. One of the theories that supports and guides people to make better decisions in a subtle way is “Nudge Theory”.

Nudge theory presents a method designated “nudges” that can be applied at low cost to guide people towards healthier lifestyles. This theory was presented by Thaler and Sunstein in their 2008 book *Nudge: Improving Decisions about Health, Wealth, and Happiness* [7].

Nudges became popular as they oppose the governing idea that humans are rational agents that constantly seek opportunities to maximize their benefits. Instead, nudges acknowledge that the decision-making capacity of people is restricted by cognitive limitations, prejudice and habits, which leads people to make decisions that are not compatible with their objectives in the long term.

Thaler and Sunstein argue that there is a “choice architecture” that can subtly make people take one decision over another. In this way, there would be a “choice architect”, a person, group of people or decision-makers that design the environment to make one option more likely to be chosen. For example, placing healthy food on the first row before junk food, or making the default that all people are organ donors and that whoever does not want to donate their organs should actively opt-out from the system, change which has increased organ donation rates in some countries [8].

These persuasion mechanisms are labelled as “libertarian paternalism.” Nudges and libertarian paternalism are not necessarily new ideas in health, as they have already been assessed in behavior changes such as reducing tobacco consumption and increasing physical activity [9]. However, although their efficacy has not been measured systematically or quantitatively, several policy making organisms are considering their use, especially to meet the Sustainable Development Goals (SDG). Therefore, it is necessary to collect evidence on this respect and promote the incorporation of these findings in the design of interventions, policies and practices for behavioral change.

Method

We will conduct a scoping review to map and summarize evidence on the use of nudges in behavior change interventions to improve health and well-being. This manuscript will employ the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for scoping reviews (PRISMA-ScR) [10].

Search strategies

Electronic searches

The literature search will use the following approach:

- 1) The terms will be discussed with experts in content and methods in order to identify the relevant, irrelevant and missing terms.
- 2) A sensitive Boolean strategy that comprises all the relevant terms will be created.
- 3) An iterative analysis of the articles omitted by the Boolean strategy will be performed to refine the strategy.

The databases that will be used are: Cochrane database of systematic reviews (CDSR); Database of Abstracts of Reviews of Effectiveness (DARE); HTA Database; PubMed; LILACS; CINAHL; PsycINFO; EMBASE; EPPI-Centre Evidence Library; WHO Institutional Repository for Information Sharing; NICE public health guidelines and systematic reviews. An advanced search will be conducted on them through the Epistemonikos platform. No restrictions on language or publication status will be applied. The search strategy was created based on the question components, identifying terms relevant in other systematic reviews and/or database thesaurus.

The searches will cover from the starting date of each database until the day prior to submission. No restrictions on study design, publication status or language will be applied in the searches.

The following strategy will be adapted to the syntax of the different databases.:

((("behavioral choice theory") OR ("economic theory") OR ("behavioral economic theory") OR ("behaviour change interventions") OR ("behavioural change") OR ("behavior change") OR ("change interventions") OR ("intervention design") OR ("behavior change interventions") OR ("comprehensive messaging strategy") OR ("behavior-change interventions") OR ("long-term behaviour change") OR ("behavioural interventions") OR ("health behaviour change") OR ("behavioral change techniques") OR (nudge)))

Eligibility Criteria

Study Type

All systematic reviews that assess the use of “nudges” in behavior change interventions to improve health and well-being will be included, including broader scope reviews that present data about our group of interest.

A systematic review will be considered as any secondary study that only includes primary studies with an explicit search strategy of at least in two databases.

Primary studies, clinical practice guides, abstracts and other evidence summary studies, including secondary studies, will be excluded.

Participants

Studies that assess the use of nudges in health and well-being will be included.

Interventions

Studies that assess the use of nudges in behavior change interventions to improve health and well-being will be included.

Results

Results will not be used as inclusion criteria during the selection process. Any article that fulfills the criteria, except for the result criterion, will be preliminarily included and then the full text will be assessed.

Selection of Studies

All systematic reviews (SR) will be included. SRs are operationally defined as any secondary research that only includes primary studies with an explicit search strategy at least in two databases, and that assesses the use of nudges related to health, included SRs of broader scope.

Primary studies, clinical practice guides, abstracts and other evidence summary studies, including secondary studies, will be excluded.

Results of electronic searches will be incorporated based on the inclusion criteria. Complete reports of all titles that seem to fulfill the inclusion criteria or that require further analysis to decide on their inclusion will be obtained.

At each search stage, the reasons for excluding reviews will be recorded and the selection process of the study will be described in a PRISMA flowchart adapted to the objective of this project.

Additional articles that comply with the selection criteria but that were not found in the initial search as they did not mention “nudges” in the title or abstract will be searched for in the reference list of the articles included.

Data Extraction and Management

Through standardized forms, two reviewers will extract data independently from each SR included. All data will be extracted from SRs and not from primary studies.

The following SR characteristics will be recorded: year of publication, search and strategy sources, number of studies included, evidence quality assessment, type of nudge used, implementation method (face-to-face or digital), implementation environment (schools, universities, health centers, etc.), place (country-geographical location), length of study, main results and/or findings.

Risk of Bias Assessment

Two researchers will assess the risk of bias of each SR included in the study independently through the tool for measuring risk of bias in systematic reviews (AMSTAR-2) [11]. The risk of bias of the primary studies included in the systematic reviews will not be assessed.

Data Synthesis

The results of the systematic reviews included will be presented in descriptions, without a quantitative synthesis.

The characteristics of each systematic review included will be presented in a table, and the results by type of nudge will be summarized using behavior change interventions to improve health and wellbeing.

Notes

Authorship Roles and Contributions

All authors of the review wrote and reviewed the protocol. The corresponding author guarantees and declares that all Authors meet the appropriate authorship criteria, that no-one who qualifies for authorship has been omitted from the list.

Conflict of Interest

All authors declare not having any financial relationship with any organization that may have a real or apparent interest in this work. There are no other relationships or activities that may have influenced this work.

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Ethics

Since researchers will not access information that may lead to the identification of individual participants, ethical approval was not obtained.

Data dissemination

All data related to the project will be made available.

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