INPLASY PROTOCOL

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A Systematic Review of Peruvian Contributions to Scientific Publications on Experimental Research Against COVID-19

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Review question / Objective: The objective of this research work is to evaluate the generation capacity of experimental research carried out in Peru, which will help in making future decisions, both to establish future studies, to elucidate the lack of studies in certain areas, as well as to determine the country's roadmap in a current and future state of emergency.

Condition being studied: Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was first reported in December 2019 in Wuhan, China, and has spread worldwide becoming a pandemic with catastrophic effects. SARS-CoV-2 severely affects humans because it is highly transmissible and rapidly mutating, and is reported to have a mortality rate between 0.8-19.6% with regional variation. Various health strategies have been applied around the world, such as non-pharmacological interventions (use of masks, social distancing, monitoring of infected persons, etc.) and vaccination to reduce the spread of the virus and contagion. However, since the emergence of SARS-CoV-2, there have been approximately 755 million cases of COVID-19 and 6.8 million deaths by February 2023.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 April 2023 and was last updated on 23 April 2023 (registration number INPLASY202340080).

INTRODUCTION

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METHODS

Search strategy: MeSH terms (Medical Subject Headings), which are used to index the citations since this is a vocabulary controlled by the NML, these terms organize their descriptors hierarchically so that more specific articles can be found from a broad search, the MESH terms are constantly updated by specialists from various areas, every year new concepts are modified and added. The search string used in PubMed was: ((COVID-19[MeSH Terms]) OR (SARS-CoV-2 [MeSH Terms])) AND (PERU).

Participant or population: The studies that were included were those that were published in journals of quartile one or two, had first authors and/or corresponding authors with Peruvian institutional affiliations, and/or had Peruvian funding.

Intervention: Generation of experimental scientific knowledge by Peru.

Comparator: The reference group is the experimental research carried out in countries close to Peru, such as Brazil, Chile, Colombia and Mexico.

Study designs to be included: Experimental studies.

Eligibility criteria: The studies included in the systematic review were selected in three stages. First, duplicate articles, original articles other than the English language, critical and systematic reviews, meta-analyses, and publications other than an original article were excluded: letters to the editor, commentary, editorial, and case reports, data studies, news, conference, and directory; all these classifications were considered using the PubMed filters. Secondly, the titles and abstracts of the studies selected using the search strategy were analyzed. Finally, potentially relevant complete studies were retrieved, and they were detached from the articles with a title or abstract that did not provide appropriate data to be considered within the systematic review.

Information sources: PubMed database (https://pubmed.ncbi.nlm.nih.gov/), with free electronic access that contains more than 35 million citations and abstracts of biomedical literature that includes various literature resources of the National Library of Medicine (NML) such as MEDLINE, PMC, and other databases.

Main outcome(s): The search was limited to studies published from December 2019 to June 22, 2022. The search for the terms associated in the literature with COVID-19 and Peru was carried out using the MeSH term and the results were analyzed in a co-occurrence network map of MeSH terms in the VOSviewer software (version 1.6.18).

Quality assessment / Risk of bias analysis: The present systematic review was carried out as per the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

Strategy of data synthesis: The search for the terms associated in the literature with

COVID-19 and Peru was carried out using the MeSH term and the results were analyzed in a co-occurrence network map of MeSH terms in the VOSviewer software (version 1.6.18).

Subgroup analysis: The following data were extracted: first author, first author's institution of affiliation, first author's country, corresponding author, corresponding author's affiliation, corresponding author's country, journal, year of publication, quartile, impact factor, institution funder, research topic, and type of research.

Sensitivity analysis: The research topics for the selected studies had to produce new scientific knowledge, development, innovation and/or adaptation of new or improved low-cost technologies, products, mechanisms or services.

Language restriction: English.

Country(ies) involved: Peru and Brazil.

Keywords: Bibliometrics, COVID-19, Peru, Systematic review, Publications / statistics & numerical data, Research / statistics & numerical data.

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