



STUDY PROTOCOL

REVISED Protocol of systematic reviews on implementation research on cardiovascular diseases, diabetes mellitus and mental ailments in India [version 2; peer review: 2 approved]

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Abstract

Introduction

The burden of non-communicable diseases (NCDs) is a major public health concern across the world. Various initiatives have tried to address these with varying degrees of success.

Objective

The objective is to assess and collate existing evidence in implementation research done in India on three broad domains of NCDs namely, cardiovascular diseases (CVD), diabetes mellitus (DM), and mental health (MH) in India.

Materials and methods

Three systematic review protocols have been drafted to explore and collate extant evidence of implementation research on cardiovascular diseases, diabetes mellitus, and mental health in India, in accordance with the PRISMA-P statement. Academic databases including PubMed, Embase and Science Direct will be searched. Search strategies will be formulated in iterative processes and in accordance with the formats that are specific to the databases that will be searched. In addition,

Open Peer Review

Approval Status

	1	2
version 2 (revision) 16 Jan 2024		 view
version 1 27 Jan 2023	 view	 view

1. **Zinia Nujum** , Government Medical College, Parippally, India

2. **Bishal Gyawali** , University of Copenhagen, Copenhagen, Denmark

Any reports and responses or comments on the article can be found at the end of the article.

grey literature and non-academic databases will also be explored. Data extracted from the selected studies will be analysed and a narrative summary of the selected articles, using the SWiM (Synthesis without meta-analysis) guidelines will be produced.

Intended Outcomes

The outputs of these systematic reviews could help in a better understanding of implementation research gaps and also how to address them. Apart from giving insights into how healthcare initiatives for CVDs, diabetes and mental health could be implemented in a better way, the study could also advocate the need to build and consolidate capacity for implementation research in the country.

Keywords

Implementation Research, Systematic review, India, Cardiovascular Diseases, Diabetes Mellitus, Mental Health Ailments, Implementation Science, Non-Communicable Diseases

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REVISED Amendments from Version 1

The manuscript has been revised according to the reviewers' comments. We have added brief introduction about implementation research and the limitation part of the study. Additionally, we have added new references to support the introduction part.

Any further responses from the reviewers can be found at the end of the article

Introduction

The burden of non-communicable diseases (NCDs) is a major public health issue plaguing India and the rest of the world. Hence, attention to prevention, control, management, and mortality reduction of these diseases is of paramount importance.¹⁻³ Ranging across the whole spectrum of primary, secondary and tertiary prevention measures, various government initiatives have tried to address these with varying degrees of success.⁴ Considering the fact that many of the strategies may have been proven efficient in various experimental and study settings, it is imperative to explore the real-life technical and allocative effectiveness of these programs, and the possible lacunae in their implementation.

All recent disease burden estimates point toward the fact that the burden of NCDs is increasing with each passing day. Along with this, it is important to note that the prevention and control of these diseases tend to entail longer and larger social and economic commitments on the part of governments. Thus, with a view to maximizing the utility of the efforts made by the government, it would be desirable to focus on implementation research done in this arena.

India faces a significant challenge with NCDs like cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases, which are now the leading causes of morbidity and mortality. This shift from infectious to chronic diseases strains the healthcare system, which is traditionally geared towards acute care. Implementation research is crucial for addressing the gap between healthcare knowledge and its application, especially in the context of NCDs in India. It involves studying and addressing the challenges of applying research findings in real-world healthcare settings. This field is particularly significant in India, where there's a high burden of NCDs, and healthcare systems face unique challenges in terms of resources, accessibility, and cultural diversity. A review of three case studies from Zambia, Zimbabwe, and Madagascar, using the Consolidated Framework for Implementation Research (CFIR), underscores the importance of factors like leadership engagement, capacity building, and cultural adaptability in ensuring the success of these public health initiatives. In LMIC (Low- and Middle-Income countries) country like India, health interventions should integrate feasible, resource-generating elements to achieve lasting and improved health outcomes.^{5,6}

Nevertheless, it would be important to understand the quantum, diversity, and quality of implementation research done in the field of NCDs in India. Being a considerably larger domain covering a wide range of diseases, it is difficult to look at implementation research on all NCDs; hence it seemed prudent to narrow down the focus of such an inquiry to three among the most prevalent and significant disease domains, from a public health point of view, viz., cardiovascular diseases, diabetes mellitus and mental health ailments. Using a systematic review approach, this study aims to examine how IR was done to advance the prevention and control of the aforesaid three NCDs in India. The main goal of this systematic review is to describe IR that has been done in the domains of these NCDs in India and how evidence from these studies could be better applied to inform policy-level impact actions on NCD interventions in India. In this paper, we are presenting the protocol of IR that was followed in conducting the systematic review of IR in three selected NCDs.

Objectives

To synthesize evidence on implementation research related to cardiovascular diseases (CVD), diabetes mellitus (DM), and mental health (MH) conducted in India.

Research question(s)

What is the evidence on implementation research on CVD, DM, and MH in India?

Protocol**Methods**

With an overarching objective to assess and collate existing evidence in implementation research done in India on three broad domains of NCDs namely, cardiovascular diseases (CVD), diabetes mellitus (DM), and mental health (MH), three systematic reviews of the implementation research conducted in the aforesaid three domains of NCDs will be

conducted. In accordance with extant PRISMA standards,⁷ separate protocols have been drafted for each systematic review, which are also registered on the PROSPERO database. (**CRD42021290547** – for Cardiovascular Diseases, **CRD42021290574** – for Diabetes Mellitus and **CRD42021290583** – for Mental Ailments). All three protocols have been written in accordance with the PRISMA for systematic review protocols (PRISMA-P) statement.⁸

Eligibility criteria

Population	All age groups, who were either part or target population of an implementation project/ research focused on CVDs/diabetes/mental health ailments, conducted in India
Intervention	Any intervention with an embedded implementation research focusing on CVDs/diabetes/ mental health ailments, conducted in India
Comparator	Wherever applicable e.g.: Comparison studies including randomised controlled trials (RCTs), non-RCTs etc.
Outcomes	Assessment of reporting of implementation descriptors will be done. Subsequent to study identification, they will be examined based on whether the implementation of intervention/ strategy has been described, the context of the research is mentioned, changes in IR variables are measured, who the implementing agency was, whether there were any deviations from initial protocol, whether any discussion of policy/practice implications was documented, and other relevant domains.

The following study designs will be included:

- Randomised & Non-Randomised Controlled Trials
- Observational analytical study designs, such as case control & cohort studies
- Observational descriptive designs such as cross-sectional studies
- Full or partial economic evaluation studies
- Qualitative study designs including qualitative case studies, narrative studies etc.

Studies reporting implementation research not conducted in India, study designs such as case reports, case series etc, policy briefs, editorials, letters, policy/program documents without details of study design used for implementation research, studies/reports published in any Indian language that is not understood by the investigation team member(s) or will require considerable time and effort to translate, will be excluded.

Studies, fulfilling the aforementioned inclusion and exclusion criteria, conducted during the last 20 years (2001-2021) will be included for all three systematic reviews.

Search strategy

Academic databases including PubMed, Embase and Science Direct will be searched. Search strategies will be formulated in iterative processes and in accordance with the formats that are specific to the databases that will be searched. In addition, grey literature will be searched through various sources namely websites of programs related to non-communicable diseases and that of various departments of national and state governments, private organisations, private-public partnership organisations and non-government organisations (NGOs) engaged in healthcare. Web-based academic search engines like Google Scholar and ProQuest will also be explored. A few key government portals will be explored, and relevant government agencies will be contacted to obtain documents pertaining to implementation research, as defined in the methodology of this review. The preliminary search strategies are detailed in the appendix of this article.

Study selection

The studies will be compiled into citation managing software. After the removal of duplicates, the titles and abstracts in three domains will be screened and assessed against the inclusion and exclusion criteria by two independent reviewers in each team using Rayyan QCRI.⁹ Titles and abstracts will then be screened and assessed against the inclusion & exclusion criteria for the review by three independent reviewers using Rayyan QCRI software.⁹ The eligible studies

after the initial screening will be retrieved in full and will be assessed in detail against the inclusion criteria by three independent reviewers. Reasons for the exclusion of full-text studies unable to meet the inclusion criteria will be recorded and reported in the final analysis. Any disagreements between the reviewers will be resolved through discussion or consultation with the designated adjudicator wherever needed. From the articles selected for the final review, data pertaining to implementation research aspects in each of the articles will be extracted and tabulated.

Assessment of methodological quality and risk of bias

The articles will also undergo a concomitant risk of bias assessment, using the Standards for Reporting Implementation Studies (StaRI) checklist,¹⁰ and a study design-specific checklist (such as STROBE,¹¹ CONSORT¹² etc.) depending on the study design of the paper in question. It was also decided a priori to produce a narrative summary of the selected articles, from an implementation research perspective, using the SWiM (Synthesis without meta-analysis) guidelines.¹³

Data extraction

All selected studies will be grouped as per their study designs. Common to all the selected studies, data will be extracted with regard to the publication date, authors, location, setting, study population, study period and sample size. In addition to these baseline attributes, data pertaining to various domains for IR shall also be recorded.

Initially, two papers will be purposively identified, and a pilot coding form will be created. This coding form will be put up for discussion within the investigation team and will be finalized for further data extraction. Apart from the above details, the coding form will also include relevant IR outcome measures like effectiveness measures (such as uptake, patient-reported outcome measures, etc.),¹⁴ economic evaluation measures (such as cost, cost-effectiveness, cost utility, etc.),¹⁵ feasibility measures related to aspects such as technical, operational, economic feasibilities, operational issues (barriers, facilitating factors, etc.), fidelity measures (such as adherence, quality of intervention delivery, participant responsiveness, etc.), and scalability measures in terms of cost scalability, operational scalability, etc.¹⁴

Dissemination

All three systematic reviews shall be separately documented and respective manuscripts shall be sent for publication.

Study status

Search and wetting of the articles completed. Narrative synthesis and manuscript preparation are currently underway.

Discussion

This study aims to gain a better understanding of the scope and magnitude of extant IR efforts in the realm of NCDs in the country. Such a body of evidence would be integral to understanding the implementation research gaps and could pave the way to explore how they could be addressed. In addition to giving insights into how the healthcare initiatives pertaining to CVDs, diabetes and mental health could be implemented in a better way, the outputs from this study could also be a document that makes a case for the need to build and consolidate capacity for implementation research in the country.

Limitations

Restricting our search to publications from the last 20 years (2000-2020) could potentially omit relevant studies published prior to 2000. This time frame limitation may exclude foundational research or long-term studies that could offer valuable insights into our topic. Another limitation of our review is the restriction to only three databases for sourcing literature, which may lead to potential selection bias by excluding relevant studies available in other databases not included in our search, thus limiting the comprehensiveness of our review. In addition to this, This review's language restrictions, specifically being limited to English-language sources only.

Ethical considerations

Not applicable.

Data availability

No data is associated with this article.

Extended data

Figshare: PRISMA-P Checklist_Protocol of Systematic Reviews on Implementation Research on Cardiovascular diseases, Diabetes Mellitus and Mental Ailments in India.pdf, <https://doi.org/10.6084/m9.figshare.21556692.v1>.¹⁶

Figshare: Appendix I – Preliminary Search Strategy - Implementation research on Cardiovascular Diseases in India, <https://doi.org/10.6084/m9.figshare.21903570.v1>.¹⁷

Figshare: Appendix II - Preliminary Search Strategy - Implementation research on Diabetes Mellitus in India, <https://doi.org/10.6084/m9.figshare.21903729.v1>.¹⁸

Figshare: Appendix III - Preliminary Search Strategy – Implementation research on Mental Health in India, <https://doi.org/10.6084/m9.figshare.21903732.v1>.¹⁹

Figshare: Appendix IV – Preliminary Data Extraction Sheet, <https://doi.org/10.6084/m9.figshare.21903765.v1>.²⁰

Data are available under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/) (CC-BY 4.0).

References

- Geldsetzer P, Manne-Goebler J, Theilmann M, *et al.*: **Diabetes and Hypertension in India: A Nationally Representative Study of 1.3 Million Adults.** *JAMA Intern. Med.* 2018 Mar 1; **178**(3): 363–372.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Sreenivas Kumar A, Sinha N: **Cardiovascular disease in India: A 360 degree overview.** *Med. J. Armed Forces India.* 2020 Jan; **76**(1): 1–3.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Sagar R, Dandona R, Gururaj G, *et al.*: **The burden of mental disorders across the states of India: the Global Burden of Disease Study 1990–2017.** *Lancet Psychiatry [Internet].* 2020 Feb; **7**(2): 148–161.
[Reference Source](#)
- Aayog HPN: **National Institution for Transforming India, Government of India.** [cited 2022 Jun 26].
[Reference Source](#)
- Arokiasamy P: **India's escalating burden of non-communicable diseases.** *Lancet Glob. Health [Internet].* 2018 Dec; **6**(12): e1262–e1263.
[Publisher Full Text](#) | [Reference Source](#)
- Ojo T, Kabasele L, Boyd B, *et al.*: **The Role of Implementation Science in Advancing Resource Generation for Health Interventions in Low- and Middle-Income Countries.** *Health Serv. Insights [Internet].* 2021 Jan 15; **14**: 117863292199965.
[Reference Source](#)
- Page MJ, McKenzie JE, Bossuyt PM, *et al.*: **The PRISMA 2020 statement: an updated guideline for reporting systematic reviews.** *BMJ.* 2021 Mar 29; **372**: n71.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Moher D, Shamseer L, Clarke M, *et al.*: **Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement.** *Syst. Rev [Internet].* 2015 Dec 1; **4**(1): 1.
[Publisher Full Text](#) | [Reference Source](#)
- Ouzzani M, Hammady H, Fedorowicz Z, *et al.*: **Rayyan—a web and mobile app for systematic reviews.** *Syst. Rev.* 2016 [cited 2022 Oct 18]; **5**(1): 210.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Pinnock H, Barwick M, Carpenter CR, *et al.*: **Standards for Reporting Implementation Studies (StaRI) Statement.** *BMJ.* 2017 Mar 6; **356**: i6795.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- von Elm E, Altman DG, Egger M, *et al.*: **The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies.** *J. Clin. Epidemiol.* 2008 Apr; **61**(4): 344–349.
[Publisher Full Text](#)
- Schulz KF, Altman DG, Moher D: **CONSORT 2010 Statement: updated guidelines for reporting parallel group randomised trials.** *BMJ.* 2010 Mar 23; **340**: c332.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Campbell M, McKenzie JE, Sowden A, *et al.*: **Synthesis without meta-analysis (SWIM) in systematic reviews: reporting guideline.** *BMJ.* 2020 Jan 16; **368**: l6890.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Lewis CC, Mettert KD, Dorsey CN, *et al.*: **An updated protocol for a systematic review of implementation-related measures.** *Syst. Rev.* 2018 Dec; **7**(1): 66.
[PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Husereau D, Drummond M, Petrou S, *et al.*: **Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement.** *BMJ.* 2013 Mar 25; **346**(mar25 1): f1049.
[Publisher Full Text](#)
- Thakor M, Moosan H: **PRISMA-P Checklist_Protocol of Systematic Reviews on Implementation Research on Cardiovascular diseases, Diabetes Mellitus and Mental Ailments in India.pdf.** figshare. Preprint. 2022.
[Publisher Full Text](#)
- Moosan H, Thakor M: **Appendix I – Preliminary Search Strategy – Implementation research on Cardiovascular Diseases in India.** figshare. Preprint. 2023.
[Publisher Full Text](#)
- Moosan H, Thakor M: **Appendix II – Preliminary Search Strategy – Implementation research on Diabetes Mellitus in India.** figshare. Preprint. 2023.
[Publisher Full Text](#)
- Moosan H, Thakor M: **Appendix III – Preliminary Search Strategy – Implementation research on Mental Health in India.** figshare. Preprint. 2023.
[Publisher Full Text](#)
- Moosan H, Thakor M: **Appendix IV – Preliminary Data Extraction Sheet.** figshare. Preprint. 2023.
[Publisher Full Text](#)

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Reviewer Report 16 February 2024

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Bishal Gyawali 

University of Copenhagen, Copenhagen, Denmark

All of the requests for revisions have been addressed.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Non-communicable diseases in Primary Care, Implementation Science, Global Health

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 1

Reviewer Report 27 November 2023

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Bishal Gyawali 

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I appreciate the opportunity to review the manuscript protocol entitled "Protocol of systematic reviews on implementation research on cardiovascular diseases (CVDs), diabetes mellitus, and

mental ailments in India." The relevance of the topic cannot be overstated, considering the underutilization of implementation research in India, where exploration of strategies for integrating evidence-based practices into real-world settings is crucial. I have several suggestions to improve the manuscript.

In the introduction, the authors rightly emphasize the significant public health challenge posed by major non-communicable diseases (NCDs), including CVDs, diabetes mellitus, and mental ailments in India, necessitating attention to prevention, control, management, and mortality reduction. However, the references cited to support these statements primarily focus on CVDs and diabetes mellitus, neglecting mental ailments. I recommend including references related to the increasing prevalence of mental health conditions in India.

The introduction could be strengthened by reporting the burden and consequences of the escalating NCD burden in India. Additionally, it is suggested that the authors provide a brief explanation of implementation research, its significance, and why it is needed in the Indian context, with a focus on NCDs.

The protocol lacks clarity regarding the inclusion of interventions, as the authors mention "any intervention with an embedded implementation research." For instance, interventions could be at the system, organizational, site, or patient level. I recommend the authors define these interventions clearly and provide examples in their review.

The rationale for limiting the review to the last 20 years (2001-2021) requires clarification.

It is not clear if there are language restrictions in the review.

The authors stated that non-academic databases such as Google Scholar and ProQuest will be utilized, but it should be clarified that both Google Scholar and ProQuest are web-based academic search engines that catalog records of academic and grey literature. Please reconsider this statement.

When using acronyms such as PRISMA-P, spell out the full name the first time it is used, and similarly, spell out acronyms the first time they are introduced, avoiding repetition thereafter.

The choice of only three databases (PubMed, Embase, and Science Direct) needs justification.

Finally, it is important to acknowledge and discuss potential limitations in the review. There might be substantial implementation research carried out but never published, potentially introducing significant selection bias to the review.

Is the rationale for, and objectives of, the study clearly described?

Partly

Is the study design appropriate for the research question?

Yes

Are sufficient details of the methods provided to allow replication by others?

Yes

Are the datasets clearly presented in a useable and accessible format?

Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Non-communicable diseases in Primary Care, Implementation Science, Global Health, Low-and Middle-Income Countries

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Reviewer Report 27 February 2023

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Protocol of systematic reviews on implementation research on cardiovascular diseases, diabetes mellitus and mental ailments in India

General comment - This will be a very useful review and will be worth publishing. Since the authors have published the search strategy also and included them as appendices, it will be useful for future references. Hence I recommend that the protocol may be taken up for publication.

Specific comments- Here are a few suggestions, which may be considered before publication:

Title states "Protocol for systematic reviews on "does the author intend to conduct multiple reviews? In this case, multiple protocols will be required

CVD, Diabetes Mellitus and Mental ailments are three very broad areas, the search terms - keywords and search strategies would be different. Also, the databases that are searched could be different, for example for mental ailments - PsycINFO covers psychology and behavioral science. This database may not be useful for other areas. So I would suggest having separate protocols for the three areas.

It would be better to mention a Protocol for systematic review- the word FOR sounds better to me than OF.

Search strategies will be formulated in iterative processes and in accordance with the formats that are specific to the databases that will be searched- shouldn't we fix the search strategy a priori.

"Academic databases including PubMed, Embase, and Science Direct will be searched. "- It would be good to add a few more if possible at least Cochrane Library also can be included since the design of the studies includes trials. Also consider some more databases like [CINAHL EBSCO](#), [Global Health Ovid](#), and [HMIC Ovid](#).

Under ethical considerations, it can also be written how the review will be beneficial

Is the rationale for, and objectives of, the study clearly described?

Yes

Is the study design appropriate for the research question?

Yes

Are sufficient details of the methods provided to allow replication by others?

Yes

Are the datasets clearly presented in a useable and accessible format?

Not applicable

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Infectious Diseases Epidemiology

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

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