

**PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol**

Section and topic	Item No	Checklist item	Location where item is reported
<b>ADMINISTRATIVE INFORMATION</b>			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	Pg 1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	NA
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	Pg 8
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	Title Page (Pg 1)
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	Title Page (Pg 2)
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	NA
Support:			
Sources	5a	Indicate sources of financial or other support for the review	Nil
Sponsor	5b	Provide name for the review funder and/or sponsor	
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	
<b>INTRODUCTION</b>			
Rationale	6	Describe the rationale for the review in the context of what is already known	Pg 1,2 and 3
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	Pg 4
<b>METHODS</b>			

Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	Pg 8 and Table S2
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	Pg 8
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Table S3
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	Pg 9 and Pg 10
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	Pg 9
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	Pg 10
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	Pg 10
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	Pg 10
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	Pg 10
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	NA
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as $I^2$ , Kendall's $\tau$ )	
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	Pg 11

Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	NA
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	Pg 13

*From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.*

**Table S2. Inclusion and exclusion criteria for the systematic review and meta-analysis**

**Review question – What are the facilitators and barriers to tuberculosis diagnosis and treatment in India?**

**SPIDER Framework**

	Inclusion	Exclusion
<b>Sample</b>	<p>Tuberculosis patients, general population (screening), care-givers &amp; healthcare workers in India</p> <p>1. Patients of Pulmonary TB and Extrapulmonary TB Confirmed by Clinical, Microbiological methods, Radiology and Histopathology.</p> <p>2. Drug sensitive TB, MDR TB and XDR TB patients.</p> <p>3. Care-givers and healthcare workers dealing with care of TB Patients.</p> <p>4. Any sex.</p> <p>6. Belonging to any State/Union territory of India.</p>	

<b>Phenomenon of Interest</b>	<p>Diagnosis and treatment of TB.</p> <p>a) Diagnosis Inclusion criteria:</p> <ul style="list-style-type: none"> <li>• Screening for TB</li> <li>• Clinical diagnosis</li> <li>• Microbiological methods including molecular methods (CBNAAT, DST)</li> <li>• Diagnosis by Radiology, Histopathology.</li> </ul> <p>b) Treatment Inclusion Criteria:</p> <ul style="list-style-type: none"> <li>• Treatment initiation, adherence, follow up, lost to follow up, treatment completion.</li> <li>• Surgical management in case of complications.</li> </ul>	<ul style="list-style-type: none"> <li>• Tuberculosis preventive therapy</li> <li>• Tuberculosis Chemoprophylaxis</li> </ul>
Design	<p>Ethnography, Phenomenology, Phenomenography, Focus group discussion, In depth Interview, Key informant interviews, Group Interview, Delphi method, Nominal group technique, Force field analysis</p> <p>Participatory Rural Appraisal, Free listing, Pile sorting, Grounded theory.</p> <p>Qualitative domain of Mixed methods studies</p>	Quantitative domain of mixed method studies
Evaluation	The reported Facilitators and Barriers, Determinants, Challenges.	
Research type	Qualitative and Qualitative component of mixed method studies.	

Geography: India.

Time period: January 2000- January 2025.

Language – English.

Human studies

Published and unpublished data

**Table S3: Search strategy for PubMed database [as of 25.12.2024]**

Database	No	Search Query
	#1	<b>(tuberculosis[MeSH Terms]) OR ((((((T B[Title/Abstract]) OR (Koch's disease[Title/Abstract])) OR (Kochs disease[Title/Abstract])) OR (tuberculous[Title/Abstract]))) OR (tuberculosis[Title/Abstract]))</b>
	#2	<b>((diagnos*[MeSH Terms]) OR (((diagnos*[Title/Abstract]) OR (detect[Title/Abstract])) OR (screening[Title/Abstract])) OR (test*[Title/Abstract])) OR (((treatment[MeSH Terms]) OR (((treat*[Title/Abstract]) OR (therapeutic*[Title/Abstract])) OR (anti tuberculosis therapy[Title/Abstract])) OR (ATT[Title/Abstract])))</b>
	#3	<b>(((((((((facilitators[Title/Abstract]) OR (barriers[Title/Abstract])) OR (challenge*[Title/Abstract])) OR (determinant*[Title/Abstract])) OR (facilit*[Title/Abstract])) OR (enable*[Title/Abstract])) OR (success*[Title/Abstract])) OR (promot*[Title/Abstract])) OR (issue*[Title/Abstract])) OR (achieve*[Title/Abstract]))</b>
	#4	<b>(((((((((((((qualitative*[Title/Abstract]) OR (mixed method*[Title/Abstract])) OR (mixed-method*[Title/Abstract])) OR (ethnography[Title/Abstract])) OR (phenomenology[Title/Abstract])) OR (force field analysis[Title/Abstract])) OR (free listing[Title/Abstract])) OR (pile sorting[Title/Abstract])) OR (focus group discussion[Title/Abstract])) OR (group interview[Title/Abstract])) OR (in depth interview[Title/Abstract])) OR (key informant interview[Title/Abstract])) OR (delphi[Title/Abstract])) OR ((((((qualitative research[MeSH Terms]) OR</b>

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(ethnography[MeSH Terms])) OR (focus group[MeSH Terms])) OR (group interview[MeSH Terms])) OR (interview[MeSH Terms])) OR (delphi\*[MeSH Terms]))

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#5

(India[Affiliation]) OR (((((((((((((((((((((((((((((((((((((((India[All Fields]) OR (kerala[All Fields])) OR (tamil nadu[All Fields])) OR (karnataka[All Fields])) OR (andhra pradesh[All Fields])) OR (maharashtra[All Fields])) OR (telangana[All Fields])) OR (gujarat[All Fields])) OR (rajasthan[All Fields])) OR (orissa[All Fields])) OR (odisha[All Fields])) OR (jharkhand[All Fields])) OR (west bengal[All Fields])) OR (uttar pradesh[All Fields])) OR (madhya pradesh[All Fields])) OR (bihar[All Fields])) OR (uttarakhand[All Fields])) OR (jammu[All Fields])) OR (kashmir[All Fields])) OR (meghalaya[All Fields])) OR (manipur[All Fields])) OR (tripura[All Fields])) OR (chhattisgarh[All Fields])) OR (arunachal pradesh[All Fields])) OR (bangalore[All Fields])) OR (bengaluru[All Fields])) OR (chennai[All Fields])) OR (hyderabad[All Fields])) OR (mumbai[All Fields])) OR (bombay[All Fields])) OR (nagpur[All Fields])) OR (Delhi[All Fields])) OR (kolkata[All Fields]))

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#6

#1 AND #2 AND #3 AND #4 AND #5

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