

# Systematic Review and Meta-Analysis: A Beginner-to-Expert Workshop

Hands-on 3-Day Online Workshop  
Organized by BioDeskINDIA  
Research Ecosystem



**June- 13 , 14, 15 - 2025**



**7:30 PM - 8.30 PM IST**

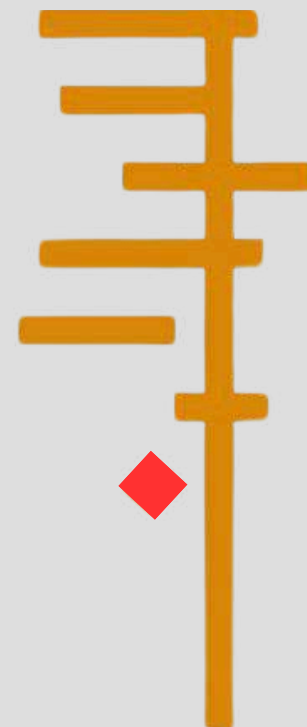


**Mode : Online (Zoom)**

## About the workshop

This intensive 3-day workshop is designed to give participants a complete understanding of how to plan, execute, and report a Systematic Review and Meta-Analysis.

- ✓ Formulating the research questions
- ✓ Developing and registering the protocol
- ✓ Conducting the literature searches
- ✓ Performing the data extraction
- ✓ Quality assessment tools
- ✓ Conducting Meta-Analysis using RevMan and R



Participants will learn how to register their protocols in PROSPERO and we will follow PRISMA guidelines for systematic reporting.

Workshop will include live demonstrations and hands-on practice using an example dataset specially prepared for participants.

## Who Should Attend

- Students (UG/PG/PhD)
- Doctors
- Faculty Members
- Healthcare Professionals
- Researchers in any discipline
- Anyone interested in conducting Systematic Reviews and Meta-Analyses





**Prof. Delna N S**  
Director and Founder  
BioDeskINDIA Labs

HOD- Department of Allied  
Health Sciences, Al-Azhar  
Medical College and Super  
Speciality Hospital



**Dr. Ajita Pillai**  
Senior Scientist  
BioDeskINDIA Labs

Post Doc Fellow  
Reliance Life Sciences



**Dr. Bhavit Bansal**  
Senior Research Fellow,  
Department of Research,  
Central Council for Research in  
Yoga & Naturopathy



**Akshay V P**  
Research Coordinator  
BioDeskINDIA Labs



**Shubrith Shrivastava**  
Research Coordinator  
BioDeskINDIA Labs

Day 1 June 13

## Foundations of Systematic Review

- Introduction to systematic review and meta-analysis: evidence-based practice.
- History and evolution of SR/MA.
- Benefits of conducting systematic reviews for students, researchers, and clinicians.
- Introduction to the essential tools and platforms:
  - OSF (Open Science Framework): setting up an account, why open science matters.
  - PROSPERO: navigating the interface, preparing for protocol registration.
  - RevMan (Cochrane software): a quick preview of how data is synthesized.
  - R and Python: introducing the relevance of coding for meta-analysis.
  - Rayyan: creating a new project, uploading citations, collaborative screening.

The session will continue with a deep dive into review frameworks:

- What is a Scoping Review, how it differs from a systematic review, and when it is useful.
- Exploring PICO, PICOS, SPIDER frameworks with real examples.

Participants will practice formulating their own research questions using PICO live.



**Day 2 June 14**

## Protocol Writing, Search & Extraction

- Protocol Development:
- Structuring a protocol document.
- Using PRISMA-P items for a quality protocol.
- Writing objectives, inclusion/exclusion criteria, methods section.
- Registering Protocols:
- Live demonstration of submitting a protocol to OSF.
- Navigating the PROSPERO registration form and required information.
- Literature Search:
- Building search strategies using Boolean operators.
- Conducting a live search in PubMed.
- Exporting results into reference managers like Zotero/EndNote.
- Study Screening:
- Uploading citations into Rayyan.
- Demonstrating blinding, inclusion/exclusion, conflict resolution in screening.
- Data Extraction:
- Creating a custom extraction sheet in Excel/Google Sheets.
- Demonstrating how to extract author, year, sample size, effect measures, outcomes.
- Participants will work with an example dataset provided, mirroring real-world research data to ensure authenticity.

**Day 3 June 15**

## Meta-Analysis & Result Interpretation

- Running a Meta-Analysis in RevMan:
- Inputting data into RevMan.
- Generating Forest Plots.
- Interpreting effect sizes, confidence intervals.
- Performing subgroup analyses.
- Exploring Meta-Analysis in R:
- Installing necessary R packages (meta, metafor).
- Running a basic meta-analysis.
- Viewing Forest Plots and heterogeneity statistics.
- Interpreting Outputs:
- Understanding Forest Plot findings.
- Interpreting Funnel Plots for publication bias.
- Explaining Egger's Test, trim-and-fill methods.
- Discussing fixed-effect vs random-effects models.
- Reporting Results:
- Learning how to write Results and Discussion sections.
- Connecting meta-analysis outputs with narrative interpretation.



**In association with**



## Special Perks

- All participants receive an e-certificate
- Best performers will get an exclusive invitation to join upcoming systematic review and meta-analysis projects at BioDeskResearch ecosystem. A FREE collaboration opportunity
- There will be Q&A + Feedback session after every day session

**Register now at**

[www.biodeskindia.com](http://www.biodeskindia.com)



## Workshop Fees

**Early Bird fee till  
May 30:**

For Indian researchers ₹859/-

International researchers 10\$

**Fee after May 30**

For Indian researchers ₹1299

International researchers 15\$



**The BioDesk Research Ecosystem is a collaborative initiative designed to support researchers in:** producing high-quality, evidence-based research and publishing in high-impact journals. We recognize the challenges faced by researchers and are committed to empowering them with the resources and guidance needed to achieve world-class recognition. Our goal is to promote a culture of rigorous, evidence-based research that contributes meaningfully to the global scientific community