

**Report of Series of Workshop on  
'Research Methods & Biostatistics'**

**November 2025 – September 2026**

**Theme: 'How to do a Good Dissertation & Publish'**

**THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI - 600032**

**Department of Epidemiology**

The Department of Epidemiology of The Tamil Nadu Dr. M.G.R. Medical University conducted a series of 18 workshops on "Research Methods and Biostatistics: How to do a good dissertation & publish," from November 2025 to September 2026. These workshops are designed to equip post-graduate students and healthcare professionals with essential research skills, aiding in their dissertation and thesis work, and promoting evidence-based healthcare practices. The workshops cover various aspects of research methodologies, biostatistics, and data analysis, fostering a culture of rigorous healthcare research.

Healthcare research has undergone significant evolution, playing a critical role in enhancing global healthcare. It focuses on improving patient care, developing innovative treatments, and enhancing healthcare delivery. Technological advancements in healthcare over the past century have revolutionized patient outcomes, and sound research methods and biostatistics remain central to translating these advances into evidence-based practice.

### **Objectives**

The core objectives of the workshop series were to empower researchers and post-graduate students from various medical, dental, and paramedical specialties with fundamental research skills. These workshops aimed to guide participants in conducting systematic research, resulting in high-quality dissertations, theses, and peer-reviewed publications.

### **Structure & Schedule**

Each workshop was a three-day programme conducted in a blended format, combining lectures, group discussions, and hands-on training using open-source software tools. A pre-test was conducted at the start of Day 1 and a post-test with feedback at the end of Day 3.

The comprehensive schedule included the following:

#### **Day 1**

- Registration and pre-test
- Getting started: how to start your research – from idea to research problem
- Framing a research question
- Selecting an appropriate study design
- Writing a research protocol
- Questionnaire development and data collection tools
- Ethics in health research
- Group activity and feedback

## Day 2

- Basic statistics in health research
- Sampling techniques and sample size estimation
- Diagnostic test accuracy studies and screening tests
- Qualitative research
- Literature search and reference manager – live demonstration and training
- Critical appraisal of scientific articles
- Group activity and feedback

## Day 3

- Group presentation and protocol review by participants
- Choosing the appropriate statistical test: what test to use and when?
- Scientific writing: from manuscript preparation to publication
- Preparing the dissertation – TNMGRMU guidelines and common errors
- Post-test and feedback

*The workshop programme was updated during 2026 to include sessions on qualitative research, diagnostic test accuracy, systematic reviews and meta-analysis, and a live demonstration of a data collection tool and reference manager.*

## Outcomes

The workshops offered participants comprehensive practical knowledge of healthcare research, encompassing biostatistical techniques and data analysis fundamentals. The interactive format promoted discussions, presentations, and evaluations of current scholarly research. Attendees acquired skills in organizing literature, utilizing statistical software tools, and addressing ethical issues in research. These sessions prepared healthcare professionals to comprehend, evaluate, and contribute to high-calibre research, ultimately benefiting society.

## Participants

A total of 3,685 postgraduate students (medical, dental, Ph.D., and allied health courses), along with research mentors from affiliated institutions, attended the 18 workshops held during this period. The first workshop of the period was held on 4–6 November 2025 and the last on 22–24 September 2026.

| Period                                        | Workshops / Participants                 |
|-----------------------------------------------|------------------------------------------|
| November – December 2025                      | 6 workshops / 1,257 participants         |
| January – September 2026                      | 12 workshops / 2,428 participants        |
| <b>Total (November 2025 – September 2026)</b> | <b>18 workshops / 3,685 participants</b> |

## Workshop-wise participation

| S.No | Month / Year | Dates of workshop | No. of participants |
|------|--------------|-------------------|---------------------|
| 1    | Nov 2025     | 04–06 Nov 2025    | 141                 |
| 2    | Nov 2025     | 11–13 Nov 2025    | 207                 |

| S.No | Month / Year | Dates of workshop | No. of participants |
|------|--------------|-------------------|---------------------|
| 3    | Nov 2025     | 18–20 Nov 2025    | 260                 |
| 4    | Nov 2025     | 25–27 Nov 2025    | 242                 |
| 5    | Dec 2025     | 09–11 Dec 2025    | 185                 |
| 6    | Dec 2025     | 16–18 Dec 2025    | 222                 |
| 7    | Jan 2026     | 20–22 Jan 2026    | 93                  |
| 8    | Feb 2026     | 03–05 Feb 2026    | 118                 |
| 9    | Feb 2026     | 24–26 Feb 2026    | 132                 |
| 10   | Mar 2026     | 03–05 Mar 2026    | 194                 |
| 11   | Mar 2026     | 24–26 Mar 2026    | 240                 |
| 12   | Apr 2026     | 28–30 Apr 2026    | 264                 |
| 13   | May 2026     | 12–14 May 2026    | 180                 |
| 14   | Jun 2026     | 16–18 Jun 2026    | 227                 |
| 15   | Jul 2026     | 14–16 Jul 2026    | 239                 |
| 16   | Aug 2026     | 11–13 Aug 2026    | 239                 |
| 17   | Sep 2026     | 08–10 Sep 2026    | 250                 |
| 18   | Sep 2026     | 22–24 Sep 2026    | 277                 |

### Resource Persons of the Workshop

The following resource persons contributed sessions during this period (compiled from the workshop schedules):

|                                                                                      |                                                                                   |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Dr. G. Srinivas, Prof & HoD, DoE, TNMGRMU                                            | Dr. Jasmine S. Sundar, Sr. Asst. Prof, DoE, TNMGRMU                               |
| Dr. S. Valarmathi, DoE, TNMGRMU                                                      | Dr. S. Kalpana, DoE, TNMGRMU                                                      |
| Dr. A. Vigneswari, TNMGRMU                                                           | Dr. Jayashree, Asst. Prof, TNMGRMU                                                |
| Dr. Keerthana, Asst. Prof, TNMGRMU                                                   | Dr. E. Rajalakshmi, TANCAM / ICMR-NIE, Chennai                                    |
| Dr. Yuvaraj Krishnamoorthy, Head, PROPUL Evidence, Chennai                           | Dr. Prathiksha G, Scientist C, ICMR-NIE, Chennai                                  |
| Mrs. Kiruthika G, Scientist C, ICMR-NIE, Chennai                                     | Dr. Krithiga, ICMR-NIE, Chennai                                                   |
| Dr. Ponnuraja, Scientist E, ICMR-NIRT, Chennai                                       | Dr. Vasantha, Scientist, ICMR-NIRT, Chennai                                       |
| Dr. Karunanithi, Asst. Prof, Public Health Dentistry, Meenakshi Ammal Dental College | Dr. Shyam, Assoc. Prof, Meenakshi Ammal Dental College, Chennai                   |
| Dr. P. Saravanakumar, Professor, Community Medicine, MMC, Chennai                    | Dr. Rajesh, Assoc. Prof, Community Medicine, Kilpauk Medical College              |
| Dr. Krishna Prasanth, Assoc. Prof, Community Medicine, Sree Balaji Medical College   | Dr. A. Precilla Catherine, Prof & HoD, Physiology, Tiruvannamalai Medical College |
| Dr. Selvaraj Siddharth, Asst. Prof, Community Medicine, ESIC Medical College         | Dr. Suthandira Kannan, Assoc. Prof, Community Medicine, ESIC Medical College      |

|                                                                   |                                                                        |
|-------------------------------------------------------------------|------------------------------------------------------------------------|
| Dr. Vignesh, Asst. Prof, Community Medicine, ESIC Medical College | Dr. Bhuvaneswari, Asst. Prof, Community Medicine, ESIC Medical College |
| Dr. Sagar, Asst. Prof, Community Medicine, ESIC Medical College   | Dr. Dhanajayan, Asst. Prof, Community Medicine, ESIC Medical College   |
| Dr. Kiran Pradeep, Madha Medical College                          | Dr. Sarof, Asst. Prof, Community Medicine, Madha Medical College       |

## Course Evaluation

The course was evaluated through online surveys that participants filled out both prior to the workshop's commencement (pre-test) and upon its conclusion (post-test).

## PARTICIPANT FEEDBACK

At the end of each day during the workshop, all participants were asked to evaluate the relevance and effectiveness of the course content as well as how the training had met their objectives and expectations. The key evaluation criteria were:

- Overall course content
- The expertise of the resource personnel
- Learning environment

The feedback forms were shared online and responders were kept anonymous. Participants rated each session on a scale of 1 = Very Poor to 5 = Excellent.

84% gave an average score of 4 or more, and the median score was 4."

Overall, the workshops were well received; the faculty of the Department were pleased to observe the active participation of the attendees. However, we need to wait to see the research work quality, which could be objectively assessed through quality dissertations and peer-reviewed publications in the near future.

All the sessions were very useful for their dissertation work

Participants found sample size was with simpler examples, and more practice.

For literature search and Zotero/PubMed, a live step-by-step demo was useful

Wi-Fi affected Epicollect, OpenEpi, and QR-code activities, and participants asked for uninterrupted internet.

They requested shorter sessions, breaks between sessions, and more days with shorter schedules instead of three long days.

Participants wanted more group activities, practical laptop exercises, and discipline-specific examples like dental.

Comments on venue and catering included restroom cleanliness, seating, projection screen clarity, microphone audio, air-conditioning, and more food variety including non-veg

We extend our gratitude to the Honourable Vice-Chancellor and The Registrar of The Tamil Nadu Dr. MGR Medical University for their continuous support in organizing these workshops.

***“Finish your dissertation, do not let it finish you” – Joanne Broder Sumerson***