

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

August 2024 – October 2025

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 46 workshops on "Research Methods and Biostatistics: How to do a good dissertation & publish," between September 2024 and October 2025. 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

- Getting started, pre-assessment and common sins in health research
- Generating research ideas and research questions
- Navigating the research process
- Selecting an appropriate research design
- Searching and organizing literature (PubMed, MeSH, Zotero)
- Basic statistics in health research

- Writing a research protocol
- Questionnaire development and data management
- Group discussion to identify research topics

Day 2

- Critical appraisal of journal articles
- What test to do when?
- Diagnostic study
- Qualitative research
- Methods of sampling and sample size estimation
- Ethics in healthcare research
- Group discussion

Day 3

- Data management
- Writing the dissertation and elaborating University guidelines
- How to get the research paper published? Types of articles for publishing
- Presentation of each participant's research topic and discussion
- Post-assessment and feedback

The sequence of sessions was adjusted from workshop to workshop depending on resource person availability; the core content remained the same.

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 4,973 postgraduate students (medical, dental, Ph.D., and allied health courses), along with research mentors from affiliated institutions, attended the 46 workshops held during this period. The first workshop of the period was held on 3–5 September 2024 and the last on 28–30 October 2025.

Period	Workshops / Participants
September – December 2024	14 workshops / 1,120 participants
January – October 2025	32 workshops / 3,853 participants
Total (September 2024 – October 2025)	46 workshops / 4,973 participants

Workshop-wise participation

S.No	Month / Year	Dates of workshop	No. of participants
1	Sep 2024	03–05 Sep 2024	74
2	Sep 2024	10–12 Sep 2024	76
3	Sep 2024	18–20 Sep 2024	81
4	Sep 2024	24–26 Sep 2024	92
5	Oct 2024	08–10 Oct 2024	72
6	Oct 2024	15, 17 & 18 Oct 2024	65
7	Oct 2024	22–24 Oct 2024	82
8	Nov 2024	05–07 Nov 2024	76
9	Nov 2024	12–14 Nov 2024	77
10	Nov 2024	19–21 Nov 2024	88
11	Nov 2024	26–28 Nov 2024	74
12	Dec 2024	03–05 Dec 2024	76
13	Dec 2024	10–12 Dec 2024	95
14	Dec 2024	17–20 Dec 2024	92
15	Jan 2025	07–09 Jan 2025	67
16	Jan 2025	21–23 Jan 2025	72
17	Jan 2025	28–30 Jan 2025	88
18	Feb 2025	04–06 Feb 2025	95
19	Feb 2025	18–20 Feb 2025	129
20	Feb 2025	25–27 Feb 2025	140
21	Mar 2025	04–06 Mar 2025	96
22	Mar 2025	11–13 Mar 2025	123
23	Mar 2025	18–20 Mar 2025	121
24	Mar 2025	25–27 Mar 2025	131
25	Apr 2025	02–04 Apr 2025	112
26	Apr 2025	22–24 Apr 2025	179
27	May 2025	06–08 May 2025	126
28	May 2025	13–15 May 2025	144
29	May 2025	20–22 May 2025	146
30	May 2025	27–29 May 2025	162
31	Jun 2025	03–05 Jun 2025	117
32	Jun 2025	10–12 Jun 2025	146
33	Jun 2025	17–19 Jun 2025	115

S.No	Month / Year	Dates of workshop	No. of participants
34	Jun 2025	24–26 Jun 2025	147
35	Jul 2025	01–03 Jul 2025	68
36	Jul 2025	08–10 Jul 2025	125
37	Jul 2025	15–17 Jul 2025	146
38	Jul 2025	22–24 Jul 2025	154
39	Jul 2025	29–31 Jul 2025	134
40	Aug 2025	05–08 Aug 2025	58
41	Aug 2025	12–14 Aug 2025	84
42	Aug 2025	19–21 Aug 2025	112
43	Sep 2025	09–11 Sep 2025	111
44	Sep 2025	16–18 Sep 2025	188
45	Oct 2025	07–09 Oct 2025	76
46	Oct 2025	28–30 Oct 2025	141

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. Kalpana, Research Officer, DoE, TNMGRMU	Dr. S. Valarmathi, Research Officer,(Statistics), DoE, TNMGRMU
Dr. E. Rajalakshmi, TANCAM, Chennai	Dr. K. Yuvaraj, Head, Evidence Synthesis Unit, PROPUL Evidence
Dr. Vijay Prasad, Medical and Public Health Consultant, Chennai	Dr. S.A. Rizwan, Scientist, NIE, ICMR, Chennai
Mr. Vettrichelvan Venkatasamy, NIE, ICMR, Chennai	Dr. C. Ponnuraja, Scientist, NIRT, ICMR, Chennai
Dr. Vasantha, NIRT, ICMR, Chennai	Dr. Newton, Scientist E, ICMR-NIRT, Chennai
Dr. Leeberk Raja, Scientist E, ICMR-NIRT, Chennai	Dr. P. Saravanakumar, Professor, MMC, Chennai
Dr. Damodaran, MMC, Chennai	Dr. Arvinthram, MMC, Chennai
Dr. Roy Arokiam Daniel, ESIC & PGIMSR, Chennai	Dr. Dhanajeyan, ESIC & PGIMSR, Chennai
Dr. Subasri, ESIC & PGIMSR, Chennai	Dr. Sagar, Dept of Community Medicine, ESIC Medical College
Dr. Selva Raja Siddarth, ESIC Medical College, Chennai	Dr. Suthanthira Kannan, Assoc. Prof, ESIC Medical College, Chennai

Dr. Pari Dayal, MCC, Chennai	Dr. Karunanithi, Asst. Prof, Meenakshi Ammal Dental College, Chennai
Dr. Shyam, Assoc. Prof, Meenakshi Ammal Dental College, Chennai	Dr. A. Precilla Catherine, Govt. Tiruvannamalai Medical College
Dr. A. Balaji, Arunai Medical College, Tiruvannamalai	Dr. M. Anbarasi, Chettinad Hospital & Research Institute
Dr. Parameshwari, Govt. Villupuram Medical College	Dr. Parameshwari Srijayanth, Dr. MGR Medical Research Institute
Dr. Geetha, Karpaga Vinayaka Medical College	Dr. S. Selva Arul Pandian, Prof, Dept of Statistics, Loyola College
Dr. K. Narayanasamy, Vice Chancellor, TNMGRMU	Dr. A. Vigneshwari, Asst. Prof, Community Medicine, Chennai

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.

78% gave an average score of 4.24, 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.

Suggestions and comments from participants included:

- Well organised; literature search and PubMed demonstration sessions were interactive and useful
- Increase the number of days and reduce the length of each day's sessions
- Better seating arrangements
- Improve the food and refreshments
- Include hands-on practice with statistical software and more worked examples for study designs

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