



St. John's Medical College & Research Institute

Bangalore, India

In Collaboration with faculty from

McMaster University, Canada

11-15 MARCH 2024

15th Annual International One-Week Course on

HEALTH RESEARCH METHODOLOGY

AND

EVIDENCE BASED MEDICINE 2024

COURSE REPORT

DIVISION OF CLINICAL RESEARCH AND TRAINING &

DEPARTMENT OF PHARMACOLOGY

ST. JOHN'S MEDICAL COLLEGE & RESEARCH INSTITUTE, BANGALORE

ORGANIZING TEAM

Dr. Denis Xavier

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**Boehringer
Ingelheim**

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BACKGROUND AND INAUGURATION

St. John's Medical College and Research Institute, Bangalore in association with the Population Health Research Institute, McMaster University, Canada, has been conducting short term courses on health research methods since 2009. We started with a National Institutes of Health (NIH, USA) grant in 2009 for 5 years and continued thereafter. In the last 15 years, we have trained about 2264 health professionals from 83 institutions in 45 cities across 10 countries.

We are delighted to present a brief report on this year's one-week course conducted from March 11 to 15, 2024. The Karnataka Medical Council accredited and awarded 6 credit points.

The inaugural was held on 11 March. It was attended by Rev Fr. Jesudoss Rajamanickam, Director, Rev. Dr. Charles Davis, Associate Director, Dr. George D'Souza, Dean of St. John's Medical College, Dr. Tony DS Raj, Dean of Research Institute, Dr. Arvind Kasthuri, Chief of Medical Services, Special Guests, Faculty, Staff & Students.



INAUGURAL



Rev. Fr. Jesudoss Rajamanickam
Director, St. Johns Medical College and Hospital



Rev. Fr. Dr. Charles Davis
Associate Director, St. John's Medical



Dr. Tony DS Raj
Dean, St. John's Research Institute



Dr. George D' Souza
Dean St. John's Medical college



Dr. Arvind Kasthuri
CMO, St. John's hospital



Dr. Denis Xavier
Course Director, DCRT SJRI

OBJECTIVES OF THE COURSE

- To familiarise a wide range of health professionals with the fundamentals of health research methods and evidence-based medicine.
- To provide an opportunity to interact with like-minded professionals from varied health fields and to explore collaborations.

PARTICIPANTS

The course has been designed for faculty, postgraduate, and PhD students from medical, dental, nursing, and pharmacy colleges, ethics committee members, regulators, librarians, and health policymakers. We had 103 participants from 52 institutes representing 31 cities from India and Sri Lanka.

FACULTY

The faculty were from St. John's Medical College and St. John's Research Institute, Bangalore, AIIMS, Bhopal, AIIMS, Nagpur, Public Health Foundation of India, New Delhi & McMaster University, Canada.

McMaster University, Canada Dr. Gordon Guyatt Dr. P J Devereaux	St. John's Medical College, Bangalore Dr. Atiya Faruqui Dr. A R Ramesh Dr. Deepak Kamath Dr. Denis Xavier Dr. Mangala Rao Dr. Tinku Thomas
AIIMS, Bhopal Dr. Rajnish Joshi	St. John's Research Institute, Bangalore Dr. Prem Pais
Public Health Foundation of India, New Delhi Dr. Prabhakaran Dorairaj	

COURSE METHODS

We had 19 interactive lectures, 4 small group protocol discussions, 4 journal clubs and 4 project presentations. There were 14 lectures on health research methods, 5 on statistics and 2 on project management. The topics covered were study design and methods, ethics, grants and publications, project & data management, evidence-based medicine, real-world evidence, and statistics, with an interactive practical session in SPSS.

Lectures on health research methods

1	Introduction to Study Designs	6	Knowledge Translation and Health Policy
2	Cross-sectional design	7	Systematic Review and Meta-analysis
3	Case-Control study	8	Qualitative studies
4	Cohort study	9	Real World Evidence
5	Randomised Controlled Trials	10	Research Training and Grant Writing

Lectures on evidence-based medicine

1	Evidence-Based Medicines & Clinical Practice
2	Principles of Evidence-Based Medicine

Lectures on Statistics

1	Parametric Tests	4	Correlation and Regression analysis
2	Non-Parametric Tests	5	Survival Analysis
3	Sample size		

Statistics practical sessions

Guided hands-on training on

- a. T-tests
- b. Chi-squared tests
- c. ANOVA
- d. Correlation & Regression

A trial version of SPSS with data sets were sent in advance to the participants. These were used for hands-on exercises.

Lectures on project management included

1. Regulatory
2. Budgets
3. Data Management
4. Ethics Review

The lectures on principles and practice of evidence-based medicine (EBM) were by **Dr. Gordon Guyatt and Dr. P J Devereaux from McMaster University, Canada**. They provided an overview of the evolution of EBM, the practice of EBM with appropriate examples and the need for collaboration. **Dr. Prabhakaran Dorairaj from PHFI, India**, spoke about the methods of developing health services, the rationale of knowledge translation, and strategies for working with policymakers.

The **small group activities** included four journal clubs (Registry/Cross-sectional study, Case-Control, Randomized Controlled Trial and Systematic Review/Meta-analysis) and four project presentations (Registry/Cross-sectional study, Case-Control, Cohort study and Randomized Controlled Trial).

The **Four Zen protocol sessions** were conducted with discussions between the group members and the faculty on the research question, design, methods, data analysis & budget. The projects developed during the sessions were presented at the end of the course.

The speakers for the journal clubs and the project presentations were picked up randomly. After the presentations, the group was invited on stage to answer questions from the audience and faculty.

JOURNAL CLUB PRESENTATION: GROUP QUESTION & ANSWER SESSION



Group A



Group B



Group C



Group D

The following were the Journal club articles presented by the groups at the journal club sessions:

Group	Study Design	Study Title
A	Randomised Controlled Trials	Cholesterol Lowering in Intermediate-Risk Persons without Cardiovascular Disease (HOPE -3), NEJM 2016
B	Systematic Review and Meta-Analysis	Troponin elevations after non-cardiac, non-vascular surgery are predictive of major adverse cardiac events and mortality. BJA 2016
C	Cross-sectional/ registry	Treatment and outcomes of acute coronary syndromes in India (CREATE): a prospective analysis of registry data, Lancet 2008
D	Case-Control Study	Risk factors for ischemic and intracerebral hemorrhagic stroke in 22 countries (the INTERSTROKE study): a case-control study. Lancet 2010

AWARDS TO THE PARTICIPANTS

There were two categories of awards for the participants

1. Dr. David Sackett Memorial Award
2. Dr. Gordon Guyatt Team Award

1. Dr. David Sackett Memorial Award: The assessment was based on an MCQ test conducted at the end of the course and their group's performance in Journal Club and Project Presentation.

The top 3 participants were:



Dr. Rajeev Ranjan
All India Institute Of Medical Sciences, Patna



Dr. Ravi Rohilla
Govt. Medical College and Hospital, Chandigarh



Dr. Harmanjit Singh
Govt. Medical College and Hospital, Chandigarh

2. Dr. Gordon Guyatt Team Award : The prize for the best group was awarded based on the performance of the journal club and project presentation, as well as the individual scores of the members in the evaluation. The journal clubs and project presentations were evaluated by 24 Judges invited from 14 institutes across India. They assessed the groups based on the knowledge, clarity of presentation, quality of slides and response to the questions. A certificate and a plaque were awarded to all the participants in the winning group.

Winners of the Dr. Gordon Guyatt Team Award- Group B

SL. No	Name	Institute
1	Dr. Akula Kapil	Mehta Multispeciality Hospital, Chennai
2	Dr. Aseem Rangeekar	ICMR-BMHRC, Bhopal
3	Dr. Brijeshkumar Mahendrabhai	Government Medical College, Surat
4	Dr. Bhargavi K	JIPMER, Pondicherry
5	Ms. Harshita Shetty	St. John's Research Institute, Bengaluru
6	Ms. Jasmine Sarwan	Gautham College of Pharmacy, Bengaluru
7	Dr. Jervin Mano M	Abbott Healthcare Pvt. Ltd, Mumbai
8	Dr. Komal K B	Hosmat College of Physiotherapy, Bengaluru
9	Dr. M Kannan	Meenakshi Mission Hospital & Research Centre, Madurai
10	Dr. Manasi K Dholakia	PDUMedical College, Rajkot
11	Dr. Marasingha Mudyanselage Janaka Marasinghe	Postgraduate Institute of Medicine, Sri Lanka
12	Dr. P Jayaraj	Bangalore Medical College and Research Institute, Bengaluru
13	Mr. R Vivek Prasanna	Sri Ramachandra Institute of Higher Education and Research, Chennai
14	Dr. Mer Ruchita Jitubhai	C.U.Shah Medical College and Hospital, Gujarat
15	Dr. Ravi Rohilla	Government Medical College and Hospital, Chandigarh
16	Dr. Ravpreet Kaur	Institute of Medical Science, Banaras Hindu University, Varanasi
17	Dr. Remya T K	Government Medical College, Kannur
18	Ms. Rinta Paul	Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram
19	Ms. S A Sasikala (Sr Kala Antony)	Holy Cross College of nursing, Kottiyam
20	Dr. Sakthivadivel V	AIIMS, Bibinagar
21	Dr. Sonam	GSVM Medical College, Kanpur
22	Dr. Tejas Rajendrakumar Pandya	Smt. Nathiba Hargovandas Lakhmichand Municipal Medical College, Ahmedabad
23	Dr. Tejas Suhas Kulkarni	Smt. Kashibai Navale Medical College and General Hospital, Pune
24	Mr. P Thangsuanhau	ICMR - Regional Medical Research Centre, Dibrugarh



Certificates of CME accreditation and participation were given to the candidates who attended all the sessions.

Course Evaluation:

All participants provided a structured and open evaluation of different aspects of the course. The following were the average scores on 5:

Sessions	Score on 5
Lectures	4.5
Journal clubs	4.4
Project presentations	4.6
Zen Protocol	4.5
Statistics Practical	4.4
Time schedule	4.3
Overall	4.3

Open / Unstructured Feedback

What participants liked about the course?

- Importance of grant writing
- Learning SPSS in the most fun way there could be
- Auditorium, audio-visual facilities & seating arrangement
- Zen project methodology
- Most well-organised workshop ever
- Study designs simplified
- Project presentation, JC presentation (Teamwork) and confidence to present journal club
- Software tools for different study designs & SPSS – Hands-on
- How to critically appraise a JC using different checklists
- Shared decision-making (EBM session)
- Importance of evidence-based medicine
- Data management – Excel
- The data management lecture by Dr Atiya was very informative and up to the mark.
- In every topic, I could get an overall learning, e.g., I was able to understand what to look for and where
- Agree to disagree, and move on so the work doesn't pause. Be open to feedback regardless of age or occupation.
- Realised "hidden diamond" of Dr D Xavier & team
- Dr Prabhakaran's speech on translational medicine, coming from a cardiologist, struck a deep chord.
- Time management & one rule for all
- Co-ordination and collaboration in a team
- Inspiration from great persons who actually recognised the importance of evidence-based medicine & its implication in the population

- How to make long hours of workshop sessions interesting and meaningful.
- Enjoyment mixed with learning
- Changing the career at any stage to follow one's passion
- As a teacher, I learned the way of teaching students rather than giving good content & lectures.
- How to communicate effectively
- Came to know about international stalwarts in health research
- Using things like magic bowl can increase the attention of participants
- Relaxing audio & video, along with breathing sessions helps
- How to make poster for poster presentation
- Statistics & proper use of methods in different studies
- Sense of belongingness (family atmosphere)
- Equality is maintained throughout the course
- How to ask questions, give compliments & importance of using first name
- Being a good listener and coaching each other with answers on stage were one of the coolest things I learnt

Recommendation for improvement

- The lectures duration can be cut short to 50 min + 10 min for interactions and Q&A
- Trying smaller groups or subgroups so that everyone is involved and provide input
- Program schedule – to start early & end early
- Not to cover so many things, it is difficult, it is vast & time is short
- Course length hour/day
- Grant writing (with examples) will benefit.
- Stick to schedule (avoid changing lecture topics & conducting voting for lecturers)
- Keep more Indian studies / trials

Other comments

- Thoroughly enjoyed last 5 days. In fact it's the first ever 5 day course that kept me hooked throughout, despite tight schedule. Impeccable time management.
- It is the best ever workshop I have attended.
- Completely inspired by Dr Denis Xavier sir & his team for the extraordinary effort & commitment to teach research.
- Would recommend the course to be mandatory part of PG
- It was overwhelming experience to see and watch and hear all the esteemed authors of the game changers in the clinical research. All credits to Dr Denis Xavier, takes all the efforts to make this so successful.
- Energy & enthusiasm of Dr Denis Xavier is extra ordinary
- Dr Ramesh & Tinku madam made the statistics simple & fun
- An excellent mixture of learning in knowledge & skills with infusion of passion. I would like to come back again for other research courses
- Overall amazing organisation & effort by the team
- Extremely helpful staff
- Well- spaced sessions with no fatigue despite the packed 5 days

VALEDICTORY



Valedictory report by Dr. Denis Xavier



Participants' Feedback



Dr. Ramesh, Professor, ENT, SJMC & H



Dr. Tony D S Raj, Dean, SJRI

Awards were announced by the Course Director, Dr. Denis Xavier. Plaques and Certificates were handed over to the participants by the Dean, SJRI.



ST. JOHN'S MEDICAL COLLEGE



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