



VINAYAKA MISSION'S
KIRUPANANDA VARIYAR
MEDICAL COLLEGE & HOSPITALS



VINAYAKA MISSION'S
RESEARCH FOUNDATION
DEEMED TO BE UNIVERSITY

Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals. Salem – 636308.

Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research Research Methodology Workshop

“15.06.2021 to 18.06.2021 & 21.06.2021 to 26.06.2021 & 28.06.2021”


Report on online Research Methodology Workshop

Prepared by

Dr. B. Senthil Kumar,

Head - Central Research Laboratory for Biomedical research,
Research Co-Ordinator,
VMKV Medical College & Hospitals, Salem

Report Preparation date – 29/06/2021.


Dr. B. Senthil Kumar
Head-CRL
Research Co-ordinator


Dr. Milind V. Bhutkar
Prof. Dr. Milind V. Bhutkar, M.D., MNAMS.,
Dean
Vinayaka Mission's Kirupananda Variyar
Medical College & Hospitals
Seeragapadi, Salem - 636 308.

Research Methodology Workshop Invitation

Program Title - “Research Methodology Workshop”

Organized by Central Research Laboratory for Biomedical Research, VMKVMCH, Salem.

Date – 15.06.2021 to 18.06.2021 & 21.06.2021 to 26.06.2021 & 28.06.2021.



Vinayaka Mission's Kirupananda Variyar
Medical College & Hospitals,
Salem – 636308.

Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research

“Research Methodology Workshop”

Date : 15.06.2021 to 18.06.2021 &
21.06.2021 to 26.06.2021 &
28.06.2021

Time : 10.30 am – 12.30 pm

**VINAYAKA MISSION'S KIRUPANANDA VARIYAR MEDICAL
COLLEGE & HOSPITALS, SALEM– 636308.**

A constituent College of Vinayaka Missions Research Foundation (Deemed to be University), Salem.

**Central Research Laboratory for Biomedical Research
Research Methodology Workshop
Program Schedule**

S.No	Date	Time	Topic	Resource person
1.	15.06.2021	10:30 AM– 12:30 PM	Introduction, defining a research problem, refining research questions, formulating objectives and hypothesis.	Dr. R. Shankar, Professor, Department of Community Medicine , VMKVMCH, Salem
2.	16.06.2021	10:30 AM– 12:30 PM	Research Designs -1 Selecting appropriate research designs. Observational designs, Cross-Sectional studies.	Dr. Lovling Aarthy Maria, Assistant professor, Department of Community Medicine, VMKVMCH, Salem.
3.	17.06.2021	10:30 AM– 12:30 PM	Research Designs -2 Case-Control studies, Cohort studies.	Dr. Nirmal Sujitha I. J. Assistant professor, Department of Community Medicine , VMKVMCH, Salem
4.	18.06.2021	10:30 AM– 12:30 PM	Research Designs- 3 Experimental: Before- After studies and randomized controlled trial.	Dr. M. Vijaya Karthikeyan, Assistant professor, Department of Community Medicine, VMKVMCH, Salem.
5.	21.06.2021	11:00 AM– 12:30 PM	Sampling and questionnaire design.	Dr. Malatesh Undi, Assistant Professor (Epidemiologist), Department of Community Medicine, Karwar Institute of Medical Sciences, Karwar, Uttarakannada, Karnataka.
6.	22.06.2021	10:30 AM– 11:30 AM	Critical appraisal of journal article.	Dr. Deepti Shastri, Deputy Dean, Professor, Department of Anatomy, VMKVMCH, Salem.
		11:30 AM– 12:30 PM	Steps in protocol development	Dr. B. Senthil kumar, Head-CRL, Assistant professor, Department of Anatomy, VMKVMCH, Salem.
7.	23.06.2021	10:30 AM– 12:30 PM	Introduction to biostatistics, collection, classification and presentation of data.	Dr. Venkatesan S, M.Phil, Ph.D, Senior Lecturer, Sri Ramachandra Institute of Higher Education & Research, Chennai
8.	24.06.2021	10:30 AM– 12:30 PM	Measures of central tendency, dispersion and probability distribution.	Dr. Venkatesan S, M.Phil, Ph.D, Senior Lecturer, Sri Ramachandra Institute of Higher Education & Research, Chennai
9.	25.06.2021	10:30 AM– 12:30 PM	Inferential statistics	Dr. Venkatesan S, M.Phil, Ph.D, Senior Lecturer, Sri Ramachandra Institute of Higher Education & Research, Chennai
10.	28.06.2021	10:30 AM– 12:30 PM	Correlation, regression and sample size calculation.	Dr. Venkatesan S, M.Phil, Ph.D, Senior Lecturer, Sri Ramachandra Institute of Higher Education & Research, Chennai

DAY - 1

Topic: Introduction, defining a research problem, refining research questions, formulating objectives and hypothesis.

Date: 15.06.2021 **Time:** 10:30am to 12:30pm

VINAYAKA MISSION'S RESEARCH FOUNDATION
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Vinayaka Mission's Kirupananda Variyar
Medical College & Hospitals,
Salem - 636308.

Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research
"Research Methodology Workshop"

Topic: Introduction, Defining a Research Problem, Refining
Research Questions, Formulating Objectives and Hypothesis.

Date : 15. 06. 2021
Time : 10. 30 am - 12. 30 pm

Dr. R. Shankar,
Professor,
Department of Community Medicine ,
Vinayaka Mission' s Kirupananda Variyar
Medical College & Hospitals, Salem.

Recording

Participants (107)

Q Find a participant

- Ranga
- RANGASAMY KRISHNAMOORTH
- Ravindhar Prakash
- Ravina Rajan
- S. Sai Anantha LKG D
- sangeetha s
- Sathya Murthy
- SENTHIL M
- Shanmugasundaram @sanbu
- Shanu Shanmugasundaram
- Sheela Joice PP
- Shirin Fatima
- Soujanya M
- SRIDHAR JAGANNATHAN

Audio Start Video

Participants Chat Share Screen Record Reaction

Leave

Current Situation of Medical Research in India

- As per the recent report of 2016, only four Indian Medical colleges are among the top 10 global institutes that have publications in peer-reviewed journals.
- These are AIIMS, New Delhi, PGI Chandigarh, CMC Vellore and SGIMS, Lucknow. AIIMS, New Delhi with more than 1100 annual publications ranked third in the world after Massachusetts General Hospital, Boston, USA (74600) and Mayo clinic, Rochester, USA (3700).
- The results of this review concluded that the India has the best and the worst medical education in the world

Resource Person

Dr. R. Shankar,

Qualification – M.B.B.S, M.D,

Designation – Professor,

Department of Community Medicine

Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Total number of participants – 107

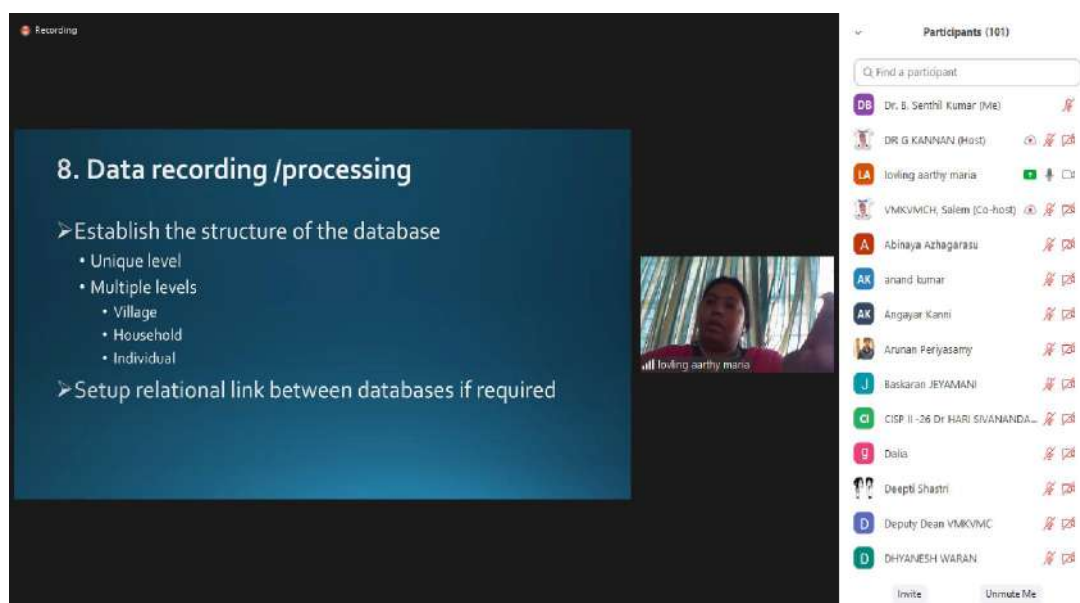
DAY - 2

Topic: Research Designs -1, Selecting appropriate research designs, Observational designs, Cross – Sectional studies

Date: 16.06.2021 **Time:** 10:30am to 12:30pm



The banner features a blue and red background. At the top, it displays the logos and names of Vinayaka Mission's Research Foundation and Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem - 636308. Below this, it identifies the Central Research Laboratory for Biomedical Research and the "Research Methodology Workshop". The topic is listed as "Research Designs -1, Selecting Appropriate Research Designs, Observational Designs, Cross – Sectional Studies." The date and time are given as 16.06.2021, 10.30 am - 12.30 pm. The presenter is Dr. Lovling Aarthi Maria, Assistant professor, Department of Community Medicine, Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.



The screenshot shows a Zoom meeting interface. On the left, a slide titled "8. Data recording /processing" is displayed. The slide content includes:

- Establish the structure of the database
 - Unique level
 - Multiple levels:
 - Village
 - Household
 - Individual
- Setup relational link between databases if required

On the right, a "Participants (101)" list is visible, showing various attendees with their names and icons. The host is DR. G. KANNAN. Other participants include lovling aarthi maria, VMKVVMCH, Salem (Co-host), Abinaya Azhagarasu, anand bumar, Angayar Kannu, Arunan Periyasamy, Basakaran JAYAMANI, CISP II -26 Dr HARI SIVANANDA..., Dalia, Deepthi Shastri, Deputy Dean VMKVVMC, and DHYANESH WARAN.

Resource Person

Dr. Lovling Aarthi Maria,

Qualification – M.B.B.S, M.D,

**Designation – Assistant professor,
Department of Community Medicine**

Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Total number of participants – 101

DAY - 3

Topic: Research Designs -2, Case-Control studies, Cohort studies.

Date: 17.06.2021 **Time:** 10:30am to 12:30pm



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VINAYAKA MISSION'S
KIRUPANANDA VARIYAR
MEDICAL COLLEGE & HOSPITALS

Vinayaka Mission's Research Foundation (Deemed to be University)

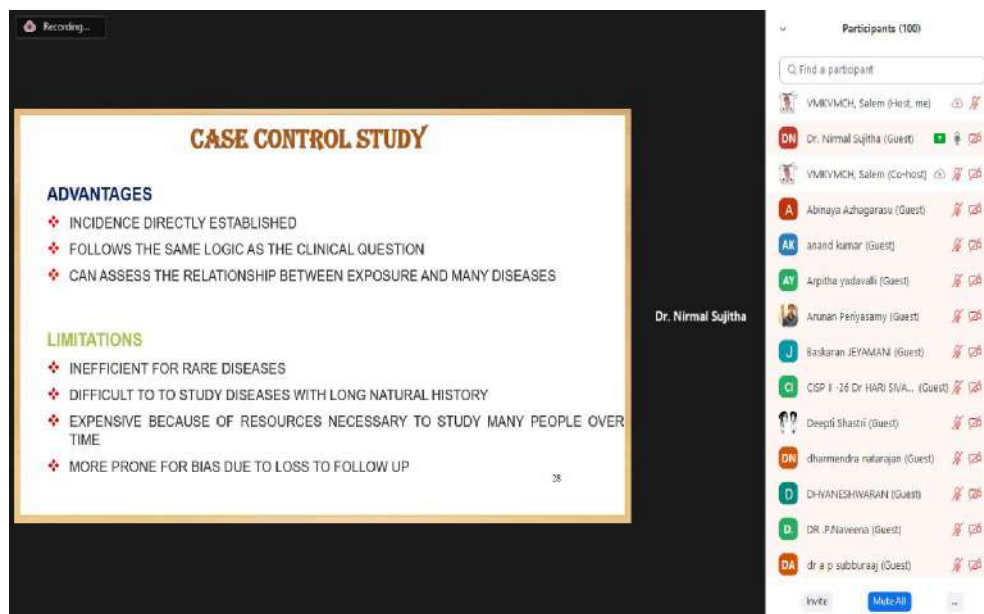
Central Research Laboratory for Biomedical Research

"Research Methodology Workshop"

Topic:
Research Designs -2
Case-Control Studies, Cohort Studies.

Date : 17. 06. 2021
Time : 10. 30 am - 12. 30 pm

Dr. Nirmal Sujitha I. J,
Assistant professor,
Department of Community Medicine ,
Vinayaka Mission's Kirupananda Variyar
Medical College & Hospitals, Salem.



Recording...

Participants (100)

Find a participant

- VMKVMCH, Salem (Host, me)
- Dr. Nirmal Sujitha (Guest)
- VMKVMCH, Salem (Co-host)
- Abinaya Azhagarasu (Guest)
- anand kumar (Guest)
- Arpitha yadavalli (Guest)
- Anuran Periyasamy (Guest)
- Baskaran JAYAMANI (Guest)
- CSP I -26 Dr. HARI SIVA... (Guest)
- Deepthi Shastrin (Guest)
- dhamendra natarajan (Guest)
- Dr. IVANESHWARAN (Guest)
- DR. P.Naveena (Guest)
- dr a p subburaj (Guest)

Dr. Nirmal Sujitha

CASE CONTROL STUDY

ADVANTAGES

- INCIDENCE DIRECTLY ESTABLISHED
- FOLLOWS THE SAME LOGIC AS THE CLINICAL QUESTION
- CAN ASSESS THE RELATIONSHIP BETWEEN EXPOSURE AND MANY DISEASES

LIMITATIONS

- INEFFICIENT FOR RARE DISEASES
- DIFFICULT TO TO STUDY DISEASES WITH LONG NATURAL HISTORY
- EXPENSIVE BECAUSE OF RESOURCES NECESSARY TO STUDY MANY PEOPLE OVER TIME
- MORE PRONE FOR BIAS DUE TO LOSS TO FOLLOW UP

28

Resource Person

Dr. Nirmal Sujitha I.J,

Qualification – M.D,

Designation – Assistant professor,

Department of Community Medicine

Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Total number of participants – 100

DAY - 4

Topic: Research Designs- 3 Experimental: Before- After studies and randomized controlled trial.

Date: 18.06.2021 **Time:** 10:30am to 12:30pm

VINAYAKA MISSION'S RESEARCH FOUNDATION
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Salem - 636308.

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MEDICAL COLLEGE & HOSPITALS

Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research

"Research Methodology Workshop"

Topic:
Research Designs- 3
Experimental: Before - After Studies and Randomized
Controlled Trial.

Date : 18. 06. 2021
Time : 10. 30 am - 12. 30 pm

Dr. M. Vijaya Karthikeyan,
Assistant professor,
Department of Community Medicine ,
Vinayaka Mission's Kirupananda Variyar
Medical College & Hospitals, Salem.

STRATIFIED RANDOMIZATION

It is a technique for ensuring that an important baseline variable (potential confounding factor) is more evenly distributed between the two groups than chance alone might otherwise assure.

1,000 Patients

Stratify By Sex:
600 Males
400 Females

Stratify By Age:
360 Young
240 Old
300 Young
100 Old

Randomize Each Sub-Group:

180 + 120 + 150 + 50 = 500
New Treatment

180 + 120 + 150 + 50 = 500
Current Treatment

Participants (84)

- Dr. B. Senthil Kumar (Me)
- VINAYMCH, Salem (Host)
- Dr.M.Vijayakartheeyan
- Abhinaya Azhagarasu
- Adithya Shankar
- Baskaran JEYAMANI
- CISF II -16 Dr HARI SIVANANDA...
- Deepthi Shastri
- DHYANESH WARAN
- DR. P.Nareena
- dr a p subburaj
- DR A V RAGHAVENDRA RAO
- Dr Arulmurugan
- Dr Moesha

Resource Person

Dr. M. Vijaya Karthikeyan,

Qualification – M.D,

Designation – Assistant professor,

Department of Community Medicine

Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Total number of participants – 84

DAY - 5

Topic: Sampling and questionnaire design.

Date: 21.06.2021 **Time:** 11:00am to 12:30pm

VINAYAKA MISSION'S RESEARCH FOUNDATION
Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem - 636308.
Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research

"Research Methodology Workshop"

Topic: Sampling and Questionnaire Design.

Date : 21.06.2021
Time : 10.30 am - 12.30 pm

Dr. Malatesh Undi, M.D, PGDBE,
Assistant Professor (Epidemiologist),
Department of Community Medicine,
Karwar Institute of Medical Sciences,
Karwar, Uttarakannada, Karnataka.

Recording... View

Participants (73)

Find a participant

VMKVMCH (Co-host, me)

VMKVMCH (Host, guest)

DM Dr. MALATESH UNDI (Guest)

A Abinaya Azhagarasu (Guest)

J Baskaran JAYAMANI (Guest)

D DHYANESH WARAN (Guest)

D. DR. P.Naveena (Guest)

DA Dr. Anulmurugan (Guest)

DH Dr. HARI SIVANANDAN (Guest)

Dr. R.Sarantya Paed (Guest)

DR. SANGEETHA S (Guest)

DS Dr. Saravana Bhava S (Guest)

D Dr. R. Sudha Biochemistry (Guest)

Dr. Rajitha Vanga (Guest)

Invite Mute All

Simple random sampling

1	Alan D.	28	Monica G.
2	Richard D.	29	Nigam D.
3	Baker H.	30	Lucia L.
4	Raymond L.	31	Jenny M.
5	Solymene D.	32	Slim D.
6	Albert T.	33	Richard S.
7	Jean Milan V.	34	Rene E.
8	Kocik D.	35	Elvira M.
9	Jenny W.	36	Marika M.
10	Anthony G.	37	Samir Z.
11	James B.	38	Felix D.
12	Diana G.	39	Maia P.
13	Kenneth L.	40	Anna Maria G.
14	Jennifer L.	41	Michel K.
15	Phillip K.	42	Genoa G.
16	Eve F.	43	Rahi M.
17	Priscilla D.	44	Oliver P.
18	Robert D.	45	Samuel M.
19	Brian P.	46	Bertha D.
20	Helen H.	47	Juan Pablo R.
21	Isabelle H.	48	Jocelyn B.
22	Joan T.		Francis P.
23	Samantha D.		Dani Hana M.
24	Bertha L.		Antonio G.

Courtesy: Dr. L. Jeyaseelan, Professor of Biostatistics, Christian Medical College

Audio Start Video Security Participants Polls Chat Share Screen Reactions More Leave

Resource Person

Dr. Malatesh Undi,

Qualification – M.D, PGDBE,

Designation – Assistant professor (Epidemiologist),
Department of Community Medicine,

Karwar Institute of Medical Sciences, Karwar, Uttarakannada, Karnataka.

Total number of participants – 73

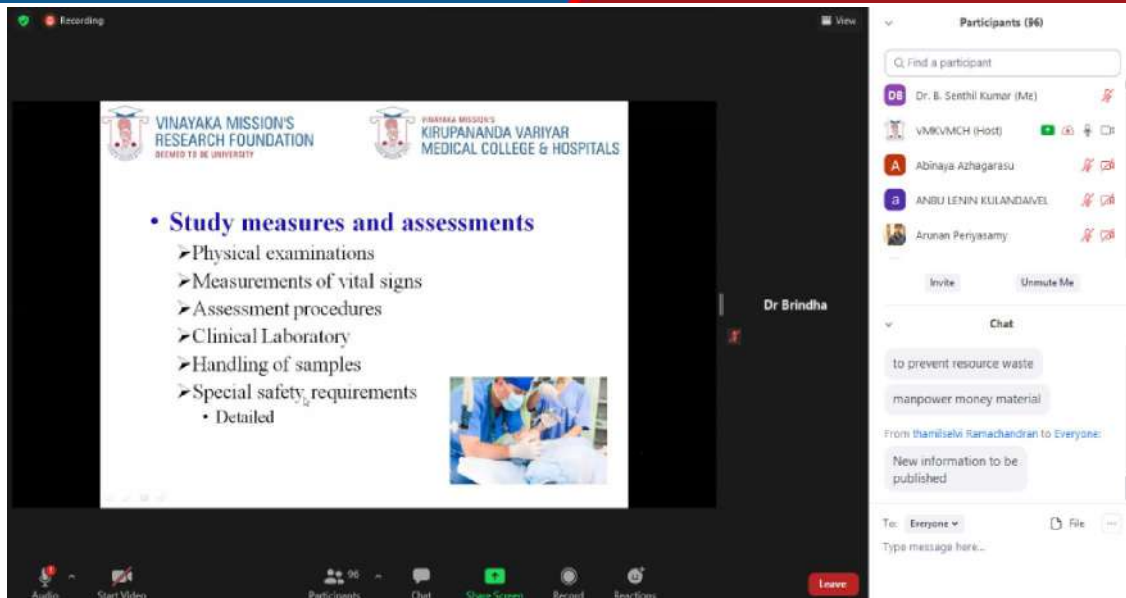
DAY – 6 (Session-1)

Topic: Steps in protocol development

Date: 22.06.2021 **Time:** 10:30am to 11:30pm



The slide features a blue and red background. At the top, it displays the logos of Vinayaka Mission's Research Foundation and Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem - 636308. The text on the slide includes: "Vinayaka Mission's Research Foundation (Deemed to be University)", "Central Research Laboratory for Biomedical Research", "Research Methodology Workshop", "Topic: Steps in Protocol Development.", "Date : 22.06.2021", "Time : 10.30 am - 11.30 pm", and "Dr. B. Senthil Kumar, Head-CRI, Assistant professor, Department of Anatomy, Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem."



The image shows a Zoom meeting interface. The main window displays a slide titled "Study measures and assessments" with a bulleted list: Physical examinations, Measurements of vital signs, Assessment procedures, Clinical Laboratory, Handling of samples, and Special safety requirements (Detailed). A small image of a medical professional is visible on the slide. The Zoom control bar at the bottom shows options for Audio, Start Video, Participants, Chat, Share Screen, Record, Reactions, and Leave. On the right, the Participants list shows 96 participants, including Dr. B. Senthil Kumar (Me), VMKVMCH (Host), Abinaya Azhagarasu, ANBU LENIN KULANDAIVEL, and Arunan Periyasamy. The Chat window shows a message: "to prevent resource waste manpower money material" and a system message: "New information to be published".

Resource Person

Dr. B. Senthil Kumar,

Qualification – Ph.D (Anatomy) ,

Designation – Head-CRI, Assistant professor,
Department of Anatomy,

Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Total number of participants – 97

DAY – 6 (Session 2)

Topic: Critical appraisal of journal article

Date: 22.06.2021 **Time:** 11:30am to 12:30pm



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Vinayaka Mission's Research Foundation (Deemed to be University)



**VINAYAKA MISSION'S
KIRUPANANDA VARIYAR
MEDICAL COLLEGE & HOSPITALS**

Central Research Laboratory for Biomedical Research

"Research Methodology Workshop"

Topic:
Critical Appraisal of Journal Article.

Date : 22. 06. 2021
Time : 11. 30 am - 12. 30 pm

Dr. Deepti Shastri,
Deputy Dean,
Professor, Department of Anatomy,
Vinayaka Mission's Kirupananda Variyar
Medical College & Hospitals, Salem.



The screenshot shows a Zoom meeting interface. On the left, a slide titled "Vancouver's style" is visible, containing text about medical writing conventions. On the right, a list of 90 participants is shown, including names like Prema priya, Priya K Dhas, PUGALENDHI RAJA, Punitha Easwar, R Rajeswari, RAJARAM S, Rajasekaran Chockalingam, ramani srinivasan, RAMYA, RANGASAMY KRISHNAMO..., and Reena Rajan. A red starburst graphic with the text "Vancouver's style" is overlaid on the slide.

Resource Person

Dr. Deepti Shastri,

Qualification – M.S (Anatomy),

Designation – Deputy Dean, Professor, Department of Anatomy,
Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Total number of participants – 90

DAY - 7

Topic: Introduction to biostatistics, collection, classification and presentation of data.

Date: 23.06.2021 **Time:** 10:30am to 12:30pm



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Medical College & Hospitals,
Salem - 636308.**

Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research

"Research Methodology Workshop"

Topic:
Introduction to Biostatistics, Collection, Classification
and Presentation of Data.

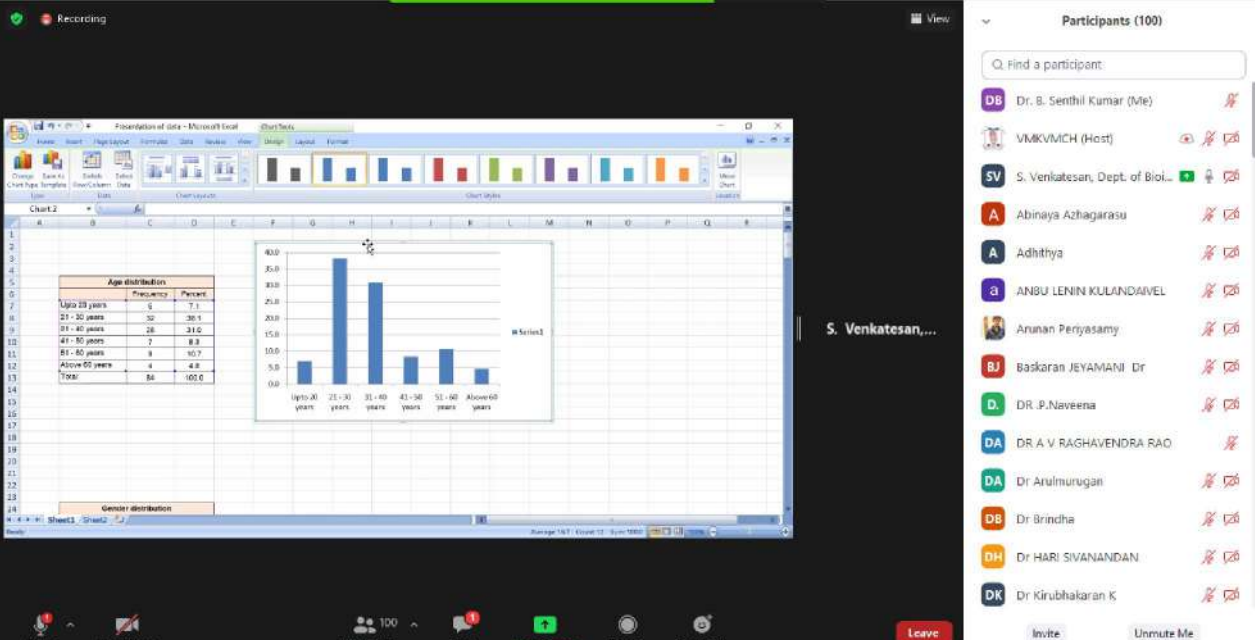
**Date : 23.06.2021
Time : 10.30 am - 12.30 pm**



**VINAYAKA MISSION'S
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Dr. Venkatesan S, M. Phil, Ph.D

**Senior Lecturer,
Sri Ramachandra Institute of Higher
Education & Research, Chennai.**



The screenshot shows a Zoom meeting in progress. The main window displays a Microsoft Excel spreadsheet titled "Presentation of data - Microsoft Excel". The spreadsheet contains a bar chart and a table of age distribution data. The bar chart shows the frequency of individuals in different age groups. The table below is a reproduction of the data shown in the Excel spreadsheet:

Age Group	Frequency	Percent
Up to 20 years	5	7.1
21 - 30 years	32	39.5
31 - 40 years	28	34.6
41 - 50 years	7	8.8
51 - 60 years	8	10.0
Above 60 years	4	4.9
Total	84	100.0

The Zoom interface on the right shows a list of 100 participants, including Dr. S. Venkatesan, Dr. S. Senthil Kumar, and others. The bottom of the screen shows various Zoom controls like Audio, Start Video, Participants, Chat, Share Screen, Record, Reactions, and Leave.

Resource Person

Dr. Venkatesan S,

Qualification – M.Phil, Ph.D,

Designation – Senior Lecturer,

Sri Ramachandra Institute of Higher Education & Research, Chennai.

Total number of participants – 100

DAY - 8

Topic: Measures of central tendency, dispersion and probability distribution.

Date: 24.06.2021 **Time:** 10:30am to 12:30pm

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VINAYAKA MISSION'S KIRUPANANDA VARIYAR MEDICAL COLLEGE & HOSPITALS

Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research

"Research Methodology Workshop"

Topic:
Measures of Central Tendency, Dispersion and Probability Distribution.

Date : 24. 06. 2021
Time : 10. 30 am - 12. 30 pm

Dr. Venkatesan S, M. Phil, Ph. D
Senior Lecturer,
Sri Ramachandra Institute of Higher Education & Research, Chennai.

History

- In 500 B.C. Pythagoras and other Greek mathematicians studied Arithmetic, Geometric, and Harmonic means.
- They were developed with references to music theory, geometry, and arithmetic.
- A measure of central tendency is a measure that tells us where the middle of a bunch of data lies.
- Mean, Median & Mode

Participants (92)

VMKVMCH (Co-host, me) [Mute] [Unmute] [Close]

VMKVMCH (Host) [Mute] [Unmute] [Close]

SV S. Venkatesan, Dept... (Guest) [Mute] [Unmute] [Close]

A Abinaya Azhagarasu (Guest) [Mute] [Unmute] [Close]

ANBU LENIN KULANDAL... (Guest) [Mute] [Unmute] [Close]

Arunan Periyasamy (Guest) [Mute] [Unmute] [Close]

AR Avinash R N (Guest) [Mute] [Unmute] [Close]

BJ Baskaran JEYAMANI Dr (Guest) [Mute] [Unmute] [Close]

D Deputy Dean VMKVMC (Guest) [Mute] [Unmute] [Close]

D DHYANESH WARAN (Guest) [Mute] [Unmute] [Close]

D DR. P.Naveena (Guest) [Mute] [Unmute] [Close]

DA dr a p. subburaj (Guest) [Mute] [Unmute] [Close]

DA Dr Arulmurugan (Guest) [Mute] [Unmute] [Close]

DB Dr Brindha (Guest) [Mute] [Unmute] [Close]

Audio Start Video Security Participants 92 Polls Chat Share Screen Reactions More

Invite Mute All

Resource Person

Dr. Venkatesan S,

Qualification – M.Phil, Ph.D,

Designation – Senior Lecturer,

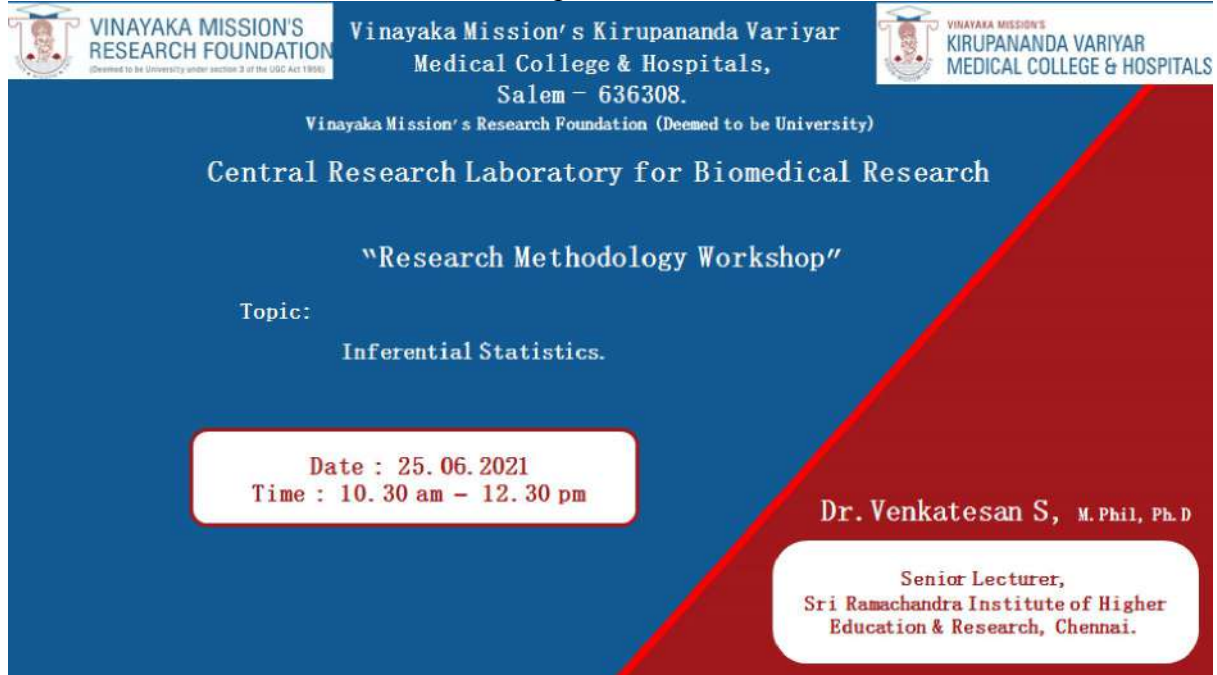
Sri Ramachandra Institute of Higher Education & Research, Chennai.

Total number of participants – 93

DAY - 9

Topic: Inferential statistics

Date: 25.06.2021 **Time:** 10:30am to 12:30pm



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Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem - 636308.

Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research

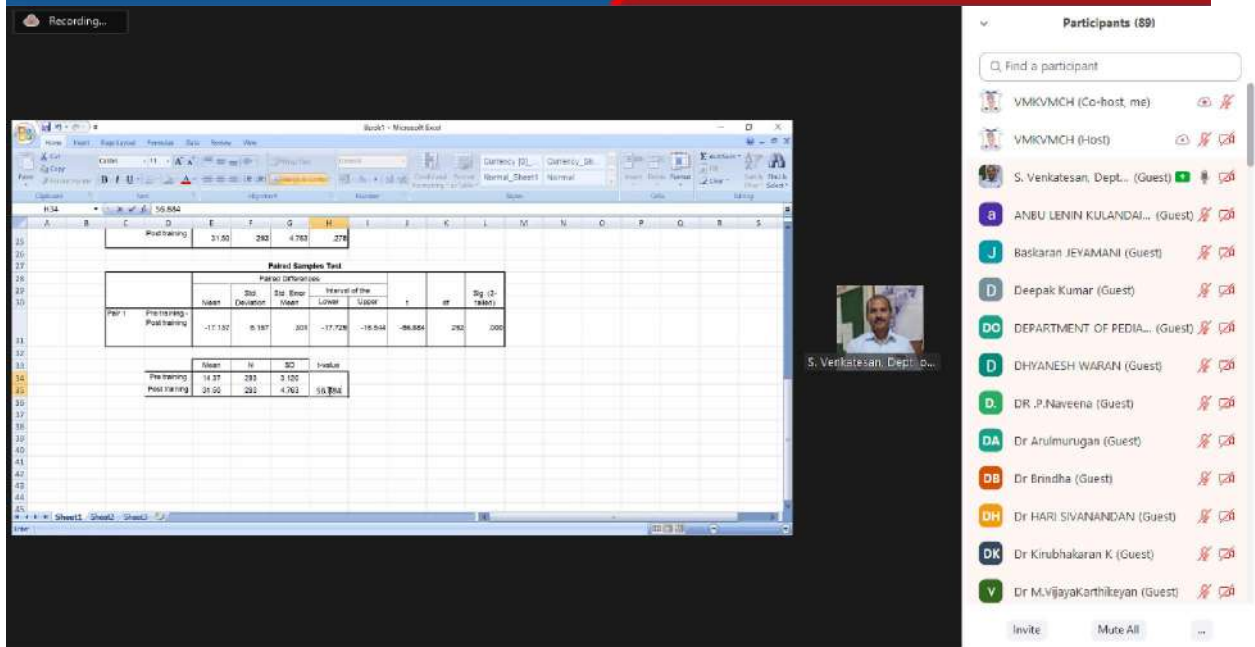
"Research Methodology Workshop"

Topic:
Inferential Statistics.

Date : 25.06.2021
Time : 10.30 am - 12.30 pm

Dr. Venkatesan S, M. Phil, Ph.D

Senior Lecturer,
Sri Ramachandra Institute of Higher Education & Research, Chennai.



Recording...

Microsoft Excel - Paired Samples Test

		Mean		t	df	Sig. (2-tailed)
		Pretraining	Posttraining			
Paired Samples 1	Pretraining - Posttraining	-17.132	8.197	.303	-17.728	-.000

Participants (89)

- VMKVMCH (Co-host, me)
- VMKVMCH (Host)
- S. Venkatesan, Dept... (Guest)
- ANEU LENIN KULANDAI... (Guest)
- Basikaran JEVAMANI (Guest)
- Deepak Kumar (Guest)
- DEPARTMENT OF PEDIA... (Guest)
- DHYANESH WARAN (Guest)
- DR. P.Naveena (Guest)
- Dr Arulmurugan (Guest)
- Dr Brindha (Guest)
- DR HARI SIVANANDAN (Guest)
- Dr Kirubakaran K (Guest)
- Dr M.Vijayarathikayan (Guest)

Resource Person

Dr. Venkatesan S,

Qualification – M.Phil, Ph.D,

Designation – Senior Lecturer,

Sri Ramachandra Institute of Higher Education & Research, Chennai.

Total number of participants – 89

DAY - 10

Topic: Correlation, regression and sample size calculation

Date: 28.06.2021 **Time:** 10:30am to 12:30pm

VINAYAKA MISSION'S RESEARCH FOUNDATION
(Deemed to be University under section 3 of the UGC Act 1956)

Vinayaka Mission's Kirupananda Variyar
Medical College & Hospitals,
Salem - 636308.

Vinayaka Mission's Research Foundation (Deemed to be University)

Central Research Laboratory for Biomedical Research

"Research Methodology Workshop"

Topic:
Correlation, Regression and Sample Size Calculation.

Date : 28. 06. 2021
Time : 10. 30 am - 12. 30 pm

Dr. Venkatesan S, M. Phil, Ph. D
Senior Lecturer,
Sri Ramachandra Institute of Higher
Education & Research, Chennai.

The term "regression" was coined by Francis Galton in the nineteenth century to describe a biological phenomenon. The phenomenon was that the heights of descendants of tall ancestors tend to regress down towards a normal average (a phenomenon also known as regression toward the mean). For Galton, regression had only this biological meaning, but his work was later extended by Udny Yule and Karl Pearson to a more general statistical context.

Participants (99)

Name	Role	Actions
Dr.senthilpriya S	Guest	[Mute] [Unmute]
Dr.shanu	Guest	[Mute] [Unmute]
Dr.Sivadharshini	Guest	[Mute] [Unmute]
Dr.Vallakani K.N	Guest	[Mute] [Unmute]
Dr.VIGNESH.B	Guest	[Mute] [Unmute]
Drpoovizhi Sekar	Guest	[Mute] [Unmute]
G.V. Seethalakshmi	Guest	[Mute] [Unmute]
Hamsavardhini Rajenth...	Guest	[Mute] [Unmute]
hari hara	Guest	[Mute] [Unmute]
Lavanya devi P	Guest	[Mute] [Unmute]
loving aarthi maria	Guest	[Mute] [Unmute]
Manivannan Ekambaram	Guest	[Mute] [Unmute]
Manju Aishwarya	Guest	[Mute] [Unmute]
Mathavi Suresh Kumar	Guest	[Mute] [Unmute]

Resource Person

Dr. Venkatesan S,

Qualification – M.Phil, Ph.D,

Designation – Senior Lecturer,

Sri Ramachandra Institute of Higher Education & Research, Chennai.

Total number of participants – 99



VINAYAKA MISSION'S
KIRUPANANDA VARIYAR
MEDICAL COLLEGE & HOSPITALS

**VINAYAKA MISSION'S KIRUPANANDA VARIYAR MEDICAL
COLLEGE & HOSPITAL, SALEM - 636308**

CENTRAL RESEARCH LABORATORY FOR BIOMEDICAL RESEARCH

“Research Methodology Workshop” was organized by Central Research Laboratory for Biomedical Research, VMKV Medical College & Hospitals, Salem.

Date – 15.06.2021 to 18.06.2021 & 21.06.2021 to 26.06.2021 & 28.06.2021

Mode of Research Methodology Workshop conducted – Zoom

Total no. of participants in the workshop from VMKVMCH – 100

Resource Person - 1

Dr. R. Shankar, M.D, Professor, Department of Community Medicine Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Resource Person - 2

Dr. Lovling Aarthy Maria, M.D, Assistant professor, Department of Community Medicine Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Resource Person - 3

Dr. Nirmal Sujitha I.J, M.D, Assistant professor, Department of Community Medicine Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Resource Person – 4

Dr. M. Vijaya Karthikeyan, M.D, Assistant professor, Department of Community Medicine Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Resource Person – 5

Dr. Malatesh Undi, M.D, PGDBE, Assistant professor (Epidemiologist), Department of Community Medicine, Karwar Institute of Medical Sciences, Karwar, Uttarakannada, Karnataka.

Resource Person – 6

Dr. B. Senthil Kumar, Ph.D (Anatomy), Head-CRL, Assistant professor, Department of Anatomy, Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Resource Person – 7

Dr. Deepti Shastri, M.S (Anatomy), Deputy Dean, Professor, Department of Anatomy, Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals, Salem.

Resource Person – 8

Dr. Venkatesan. S, M.Phil, Ph.D, Senior Lecturer, Sri Ramachandra Institute of Higher Education & Research, Chennai.

Report on Research Methodology Workshop:

- Dr. Milind V Bhutkar, Dean, VMKVMCH delivered the Dean's address and inaugurated the workshop.
- Director - Hospital Development Committee – Dr. K. Ezhilvendhan and Deputy Dean – Dr. Deepti Shastri felicitated the participants of the workshop.
- Dr. B. Senthil Kumar, Research Co-ordinator, Head - Central Research Laboratory moderated the session for faculty, with an objective of giving an orientation about research methodology and statistics.
- Total of 100 to 108 participants from VMKVMCH, Salem participated in the workshop.
- A formal program evaluation feedback was taken from the delegates and analyzed after the session (feedback attached).
- Faculty attendances were taken and e-certificates were given to only faculty who attended all the sessions.
- Faculty not able to attend the workshop will be attending in the next workshop that will be planned in the near future.

Dean

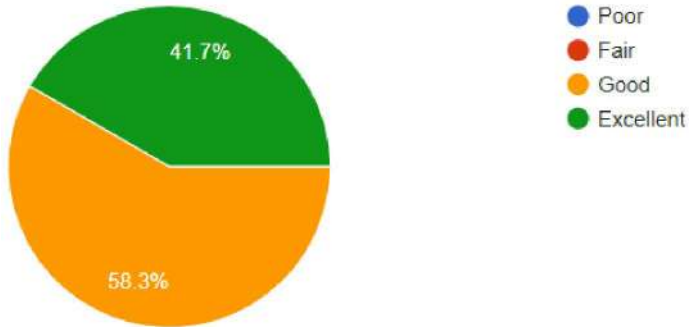
Prof. Dr. Milind V. Bhutkar, M.D., MNAMS.,
Dean
Vinayaka Mission's Kirupananda Variyar
Medical College & Hospitals
Seeragapadi, Salem - 636 308.

Program Evaluation Report / Feedback

Research Methodology Workshop

(15.06.2021 to 18.06.2021 & 21.06.2021 to 26.06.2021 & 28.06.2021)

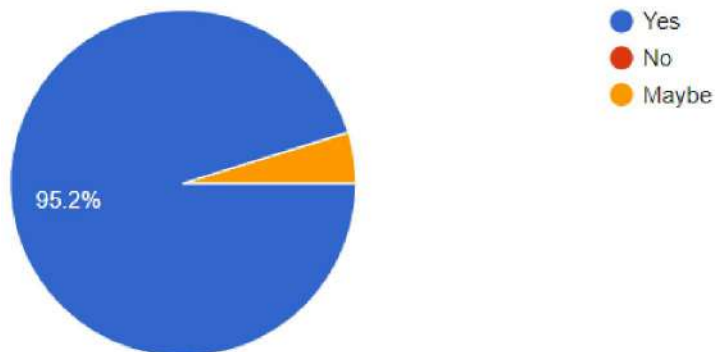
1. What is your overall assessment of the workshop?



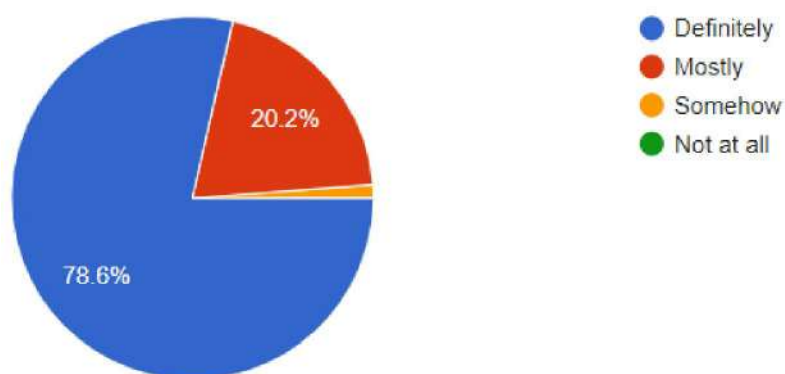
2. Did the workshop achieve its objectives?



3. Did the Knowledge and information gained from participation in this workshop had meet your expectations?



4. Will the knowledge and information gained from participation in this workshop be useful / applicable in your work in the future?



5. Which topics or aspects of the workshop did you find most interesting or useful?

- Study Design Research designs and Biostatistics
- Critical appraisal, statistics
- Sampling, protocol development, statistics
- Clinical appraisal of journal article, RCT
- Steps in protocol development and case study
- Critical appraisal, statistics, sampling
- Calculation of sample size, use of SPSS statistics
- Observational designs, case control, steps in protocol development, critical appraisal Data entry
- Sampling and questionnaire design, protocol development
- need for doing a research, basics of it, Critical appraisal, sample size calculation
- Research question, Clinical trials, Statistics, Protocol, Critical appraisal
- Clinical appraisal of journal article Sample size
- Statistics and sample calculation demo
- steps of developing a protocol, sampling method & questionnaire designing, appraisal of journal articles
- Introduction and research design modules 1, 2 and 3
- How to find research proposal
- Critical appraisal of article
- Analytical study designs Research analysis Hypothesis testing
- The topics taken by Dr. Venkatesan, journal critique, Case control study
- Sample size calculation, protocol, and literature review
- Statistical aspects
- All are good. Statistics is little high above the head
- Statistics and Analysis
- Demonstrations by Dr. Venkatesh
- Statistical analysis
- Study design, proposal, and statistical analysis
- Critical appraisal of an article
- All the topics were interesting and will be useful in future
- Hypothesis and methodology
- Topic on 22nd and 25th I feel interesting
- Critical appraisal of journal article Biostatistics
- Statistics related topics
- Critical appraisal of a journal
- Sampling and questionnaire designing, steps in protocol development, critical analysis of journal articles and Biostatistics
- Study design, Publication critic and Simple statistics
- Interesting all topics and particularly Biostatistics very useful
- How to choose a study design & clinical trials
- Research problem, Research question & formulating hypothesis

6. What were the biggest strengths of the training program?

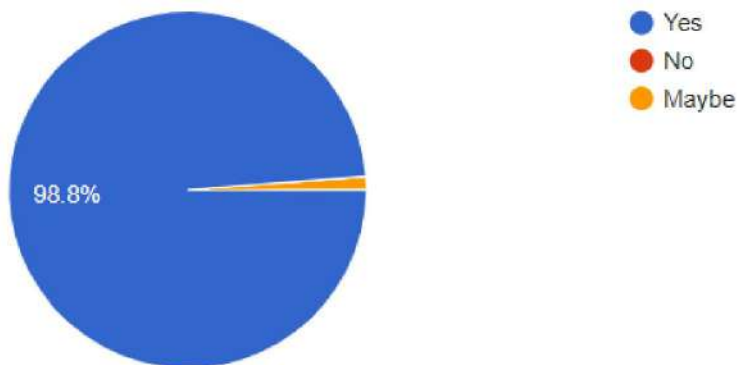
- Online, Good speakers, Organizer of the session, Clear presentations, One session per day
- All aspects of research has been covered in detail
- Learn research with proper steps
- Crisp clear presentation, easy to understand
- Time keeping, team work, Co ordination
- Training section covered various areas of research methodology mandatory for a research scholar
- The programme was very useful of how to approach and prepare for research
- Interaction and patient explanation of all the doubts Planning and execution
- Crisp & nicely arranged by all faculties Knowledge update
- Opportunity for the faculties to be ready for research paper preparation
- The qualified professional has been obtained as resource persons
- Through in depth discussion, Very clear and lucid talks covering basics
- Arrangement and communication, imparting knowledge
- Resource person Dr.venkatesan's sessions

- Well organized n most of the topics were very informative Practical
- Research methodology team Simple and clear presentation
- In depth coverage of various aspects of research methodology
- Simple language & lively interaction
- Speaker's knowledge on the topics was excellent
- Biggest strength is discussion about how to prepare for research paper's and what is important and Knowledge of the resource persons
- Helps in improving the quality of research
- Practical applicability, External speaker presentation

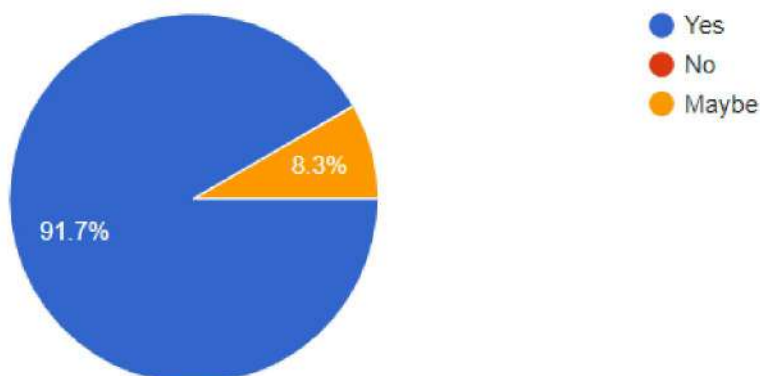
7. What were the biggest weaknesses of the training program?

- Many numbers of days
- Work emergencies or calls hindering continuity
- Duration of lecture
- Application of certain methods would be difficult due to time constraints and unavailability of resources for example samples
- I don't think there's any weakness, conducting in online
- If it is conducted offline,, it will be much more useful
- Since some of the topics were new...it was difficult to understand... But i wouldn't say it as a weakness... it was a learning curve
- Nothing much, may be 10 days program can be little short
- Duration & somewhat disturbed working hours
- The exhaustive statistics, difficult to follow, lengthy sessions
- Some topic on statistics was a little confusing
- Long lectures, continuous classes, timings
- I don't think of any weakness
- During class taking time we cannot attend the programme.
- Online may be. Because of communication difficulties
- Few prolonged sessions, high level of statistics calculation is difficult.

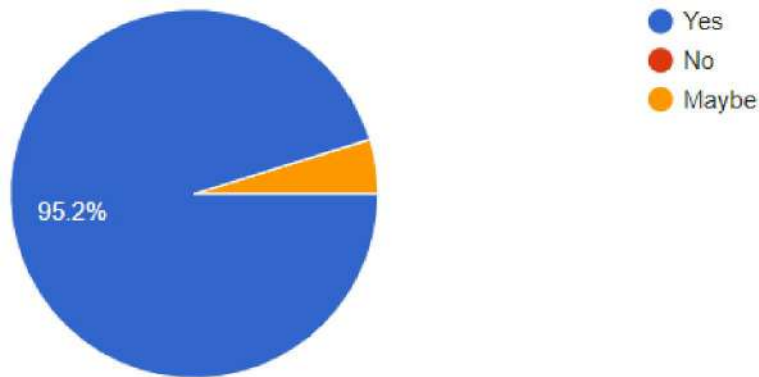
8. Did you like the presentation style of the resource persons?



9. Did the training session accommodate your personal learning style?



10. Were the training activities engaging?

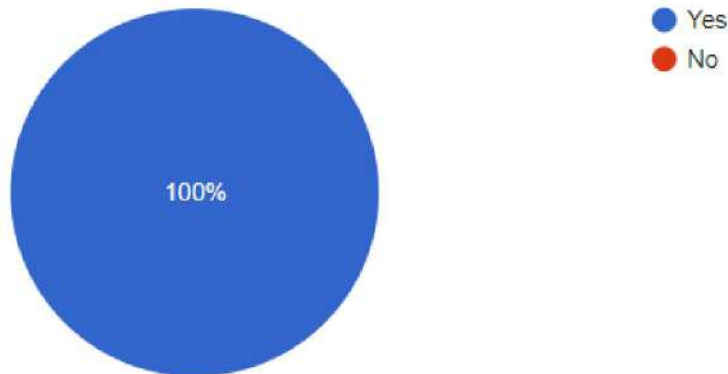


11. What are the three most important things that you learned from this training program?

- Cross sectional study, rct, critical appraisal
- Proper research methodology, requirements and formatting, Research related details
- Case study designs, protocol procedures and formulas
- Statistics, sample size, type of studies
- Selecting the perfect journal for publication, sample size calculation, types of research study that can be published
- However to choose journals before publishing an article 2. Steps of research 3. Basic biostatistics to apply in analysis
- How to do research, what are the important aspects need to be noted
- Forming a protocol and research methodology in detail, study design, statistical analysis, RCT
- Epidemiology, biostatistics, critical appraisal Research and study purpose
- Statistical analysis, Selection of participants and sample size Critically appraising journal
- Sampling, study designs, steps in protocol development
- Bias, methodology, data entry
- How to choose a topic, how to prepare and plan for a research, how to analyse at the end
- Need for research, presentation of data, sample size calculation
- Research question, study design and protocol, statistics and critical appraisal
- Basic statistics and steps for protocol development
- Sample size calculation, types of sampling, statistics
- Protocol analysis Differential and inferential statistics Sample size Questionnaire design Diagrammatic representation of results
- I am able to select a topic myself for research, formulate questions, & complete myself . Critical appraisal of a journal,
- Learned lot of new things about research, tricks and trades of publishing, statistics
- Designing a clinical trial, how to critical appraisal of article, sampling and questionnaire design
- Formation of research protocol journal clinical appraisal how to submit a clinical proposal to the ethics committee with all required details
- Research designs, Biostatistics, Protocol development
- Life cycling of research, sampling techniques, cohort study, How to write a research paper
- Research protocol, spss, statistics, Few statistical software available online
- Approach on how to do a study, study methodologies
- Study designs, biostatistics and article appraisal Basics of research
- Calculation of sample size, critical appraisal of journal, choosing appropriate statistical test for a particular study Basic statistics
- Revision, update to time, Application in journal publication
- Using SPSS software, interpretation of the results, how to perform regression analysis
- Choosing the type of study, planning, analysis
- Selecting, study designs, statistical analysis, sample size
- Basics in Research methodology, data collection and analysis, critical appraisal of an article
- Design, publications Sample calculation formula, Hypothesis and Confidence interval
- Hypothesis, types and publications aspects
- Definitions, statistical presentation, sampling
- Biostatistics, central tendency & central tendency
- Sampling types of study research method s

- Make up of Journals, critical appraisal, learning skills
- Writing a protocol, Journal analysis, biostatistics
- Importance of knowing types of studies, statistics part and critical appraisal
- We need prior detailed knowledge before doing research for better results. Selecting appropriate study design, protocol development, collection and classification of data
- Study design, Statistical analysis, writing a good research paper
- Clarity about the type of Research, Use of Statistical tools
- Study design, Study Protocol and Sample collection
- How to start a study 2.procedure to apply for seed money.3.citation
- How to approach research activity, methodology, and statistics

12. Do you think that the workshop is successful?



13. How do you think the workshop could have been made more effective?

- Time frame...Sessions to be precise and short
- Limiting the timings of each presentation
- If it is offline it would be more effective
- I wish to see difficult to understand topics to be repeated in near future to make a better May be reducing the number of days
- It could have been more interactive
- Statistics can be taken out from the workshop & can be taught separately whoever interested
- Statistics to be taken more briefly
- 4 or 5 day workshop would have been more effective Hands on training
- Once the Covid19 is over we need more offline sessions with hands on training
- Similar practical presentations
- Assignments to the participants
- Offline class with more examples and hands on interaction, sharing of more materials
- To conduct regular workshop in future
- With pre-test and post test
- By more interactive sessions
- A pre-test & post-test evaluation as was done for one of the topics could have been done for all the topics.
- Only the timing was the problem , i couldn't concentrate more because of busy schedule involving other academic activities
- If it is offline ,it would be more effective
- Could have been offline & more interactive
- Maybe offline in future it would be more effective
- All topics covered in this research workshop

14. Comments and suggestions (including activities or initiatives you think would be useful, for the future)

- To avoid many sessions
- More interactive with more pictorial depictions
- Conducting of workshops
- Off line workshop
- Such activities to be continued so that we always keep in touch with research work
- Training the post graduates also with a similar Worksop

- Expecting such event every year.
- Can be a continued program in short lectures & in small groups (physical presence)
- Offline with more activities
- Nothing specific
- More such workshops
- Qualitative design workshop
- Interactive demonstrations
- More workshops with hands on training
- Once the Covid19 is over we need more offline sessions with hands on training
- Vignettes within session for people to work on and experience the concepts
- Same as above
- It was very useful
- Can give a small home work or activity pertaining to the topic
- Same type of workshop
- Physical workshop on research methodology
- Little bit shorter presentation
- 1 month time is needed
- Offline mode will be more engaging
- More problem solving activities can be included

15. Further comments or suggestions

- Need more classes regarding research
- More helpful
- Hope to see such activities in the future
- Wonderful series of lectures, helped in clearing many basic doubts
- Excellent workshop
- Postgraduates could be included..
- Involve pgs also
- Offline and to involve post graduates
- Thank you for organising...
- Well organised, started in time finished in time. All the speakers were excellent.
- Very useful workshop
- No suggestion.
- Overall very good
- Nice initiative
- Thanks for your wonderful presentation and organized well



**Research Methodology Workshop Faculty
Participation List – 15.06.2021 & 28.06.2021**

S. No	Name of the Faculty
1.	Dr. Deepti Shastri
2.	Dr. K. Ezhil Vendhan
3.	Dr. G. Kannan
4.	Dr. Milind V. Bhutkar
5.	Dr.B.Senthil kumar
6.	Dr. V. Rajitha
7.	Dr.G. Panneer Selvi
8.	Dr.M.Gokula priya
9.	Mrs. Pratima M. Bhutkar
10.	Dr.Sheela Joice P.P.
11.	Dr. Vijayasamundeeswari C.K.
12.	Dr. R. Sudha
13.	Dr. Priya K. dhas
14.	Dr.Arunan Periasamy
15.	Dr. E. Manivannan
16.	Dr. S. Rajaram
17.	Dr. R. Ramya
18.	Dr. R. Thamil Selvi
19.	Dr.K.Anbu lenin
20.	Dr. M. Roopmala
21.	Dr.K.Sangeetha
22.	Dr.I.Poovizhi
23.	Dr.Kumudhini Priya.G
24.	Dr.S.Mathavi
25.	Dr.Padmavathi.B.K.
26.	Dr. A.V. Raghavendra Rao
27.	Dr. A. Sowmya
28.	Dr.Reena Rajan
29.	Mr.Vigneshwar.P.B
30.	Dr. R. Vallinayagam
31.	Dr.S.Sangeetha
32.	Dr. R. Shankar
33.	Dr. Nirmal Sujitha I.J.
34.	Dr. M. Vijayakarthiskeyan
35.	Dr.Lovling aarthya Maria



Seeragapadi, Salem-636 308. Tamilnadu, India

36.	Dr.P.Angayarkanni
37.	Dr. S.R. Rangabashyam
38.	Dr.C.Arul Murugan
39.	Dr.Moogambiga.S
40.	Dr.Pravin Selvam S
41.	Dr.K.Rangasamy
42.	Dr.K.V.Pugalendhi Raja
43.	Dr.R.Saranya
44.	Dr.L.R.Sanranya
45.	Dr.K.Dinesh
46.	Dr.R.Pradeep Raj
47.	Dr. Punitha
48.	Dr. Seethalakshmi.G.V
49.	Dr.Navakumar M.
50.	Dr.Monisha B.M.
51.	Dr. Lakshmi Dorai B.
52.	Dr.C.Pradeep
53.	Dr.A.S.Sheerin Fathima
54.	Dr.A.P.Subbaraju
55.	Dr.C.Rajasekaran
56.	Dr.P.Ravishankar
57.	Dr.K.V. Dhyaneshwaran
58.	Dr.Hari sivanandan.M.
59.	Dr.K.Soundararajan
60.	Dr. S. Shivakumar
61.	Dr.Prem Nivas
62.	Dr.B.Saravanabhava
63.	Dr.B.Jeyamani
64.	Dr.Senthil Priya S.
65.	Dr.G. Prema Priya
66.	Dr.Abinaya
67.	Dr. Brinda. R
68.	Dr.V.A.Sabapathy
69.	Dr.B.Arun Kumar
70.	Dr.M.Senthil
71.	Dr.Naveena.P
72.	Dr. Vinithkumar.K.
73.	Dr.S.Premkumar
74.	Dr.K.Sabari karthick
75.	Dr. Harihara Sudhan



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76.	Dr. P. Aruna
77.	Dr. B. Vignesh
78.	Dr. Prathiba
79.	Dr. S. Kavitha
80.	Dr. Sridhar
81.	Dr. Monisha M
82.	Dr. Keerthika A
83.	Dr. S. Shanu
84.	Dr. K. Kirubhakaran
85.	Dr. D. Ponnudhali
86.	Dr. C. Anjugam
87.	Dr. M. Nithya
88.	Dr. R. Rajeswari
89.	Dr. G. Ramani
