

**Medical Education Unit
Department of Pharmacology
Dr. MK Shah Medical College & Research Centre, Ahmedabad**

Report of First Research Methodology Workshop organized on 21-22 December 2017

A workshop on **Research Methodology** was held at Dr. MK Shah Medical College & Research Centre, Ahmedabad on 21-22 December 2017. The program began on December 21 with the Dean Dr. Rohit Modi welcoming of all the participants and faculty. A pretest was conducted for all participants to assess baseline knowledge on research methodology before the workshop. (Annexure V) Dr. Varsha Patel, convener of Medical Education Unit gave an introduction on research methodology. This was followed by sessions on research question, research design, and literature search. (Annexure I) Day one concluded with the participants being divided in 3 groups and each group given an assignment. (Annexure VI). On December 22 two sessions were delivered on Protocol writing and statistics. (Annexure I). This was followed by group activity and discussion of assigned protocols. The program concluded with posttest to evaluate knowledge gained due to workshop (Annexure V), program evaluation, and valedictory session. During valedictory session certificates were distributed to participants (Annexure VI) and faculty (Annexure VII).

• **Faculty Members-**

1. Dr. Varsha J. Patel – Prof. & Head, Pharmacology & Coordinator, MEU
2. Dr. Pradeep Kumar – Professor, Community Medicine
3. Dr. Maulik Patel, Associate Professor, Pharmacology
4. Dr. Dimple Shah, Assistant Professor, Pharmacology
5. Dr. Nehal Shah, Assistant Professor, Pharmacology

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ANNEXURE I

PROGRAMME

**First Workshop- Research Methodology
21 & 22 December 2017**

Day 1

- 09.30-09.45 Welcome to the participants- Dean
- 09.45-10.00 Pretest
- 10.00- 10.30 Introduction to research in Medicine – Dr. Varsha Patel
- 10.30-11.00 Research question- Dr. Nehal Shah
- 11.00-11.45 Research Designs-EBM - Dr. Varsha Patel
- 11.45-12.15 Literature search - Dr. Maulik Patel
- 12.15 Assignment

Day 2

- 09.30- 10.15 How to write a Protocol - Dr. Dimple Shah
- 10.15-10.45 Protocol Group work
- 10.45-11.15 Protocol presentation
- 11.15-12.00 Introduction to Statistics- Sampling & Data Analysis – Dr. Pradeep Kumar
- 12.00-12.15 Post-test
- 12.15 onwards Feedback & valedictory

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**ANNEXURE II
LIST OF PARTICIPANTS
First Workshop- Research Methodology
21 & 22 December 2017**

<u>S. No.</u>	<u>Name</u>	<u>Designation</u>	<u>Department</u>
1	Dr. Falguni Patel	Associate Professor	Pathology
2	Dr. Andrew Mark	Assistant Professor	Pharmacology
3	Dr. Mittal Panchal	Assistant Professor	Biochemistry
4	Dr. Gaurang Anandpara	Assistant Professor	Biochemistry
5	Dr. Riddhi Patel	Assistant Professor	Biochemistry
6	Dr. Ashita Vyas	Tutor	Biochemistry
7	Dr. Monika Patel	Tutor	Biochemistry
8	Dr. Bhoomika Shah	Associate Professor	Ophthalmology
9	Dr. Ankit Panchmatia	Assistant Professor	Psychiatry
10	Dr. Nilay Thakore	Prof . And Head	Medicine
11	Dr. Janak Chokshi	Associate Professor	Medicine
12	Dr. Jigar Patel	Assistant Professor	Medicine
13	Dr. Bhavik Prajapati	Assistant Professor	Medicine
14	Dr. Dushyant Barot	Assistant Professor	Forensic Medicine
15	Dr. Hasamukh Kubavat	Prof . And Head	Orthopedics
16	Dr. Manthan Mandalia	Assistant Professor	Orthopedics
17	Ms. Nidhi Sheth	Tutor	Community Medicine

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**ANNEXURE III
PROGRAM EVALUATION
First Workshop- Research Methodology
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Questions	Yes	No	Not sure
1. Were the objectives of the workshop largely achieved?	16	0	0
2. Do you find workshop useful for your professional activities?	16	0	0
3. Did the workshop elicit your active participation?	16	0	0
4. Were the learning resources distributed helpful?	14	0	2
5. Were the faculty helpful and responsive to learning needs?	16	0	0
6. Do you recommend the organization of similar activity? If yes, please mention the frequency/ venue:	15	0	1
7. Was the time management satisfactory?	Program was too tight(1) / Program was too relaxed (1) / Program was optimum(14)/		
8. Organizational Aspects	Good/Fine -14 Fair/OK- 2 Poor/Could be improved-0		
9. Audio-Visual arrangements	Good/Fine -13 Fair/OK- 2 Poor/Could be improved-1		
10. Venue arrangements	Good/Fine -13 Fair/OK- 2 Poor/Could be improved-1		

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ANNEXURE IV

**PRETEST AND POSTTEST RESULT
First Workshop- Research Methodology
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	Pre test Score	Post test Score
Highest score	12/20	15/20
Averages Score	7	11.75
Percentage Gain	67.86%	

**ANNEXURE V
PRETEST AND POSTTEST
First Workshop- Research Methodology
21 & 22 December, 2017**

Fill in the blanks:

1. Regarding steps in medical research, complete the following statements
 - a) Identify a _____
 - b) Review the literature
 - c) Construct a _____
 - d) Identify a _____ to investigate the problem
 - e) Collect and _____ your data
 - f) Draw conclusions
 - g) Writing and _____ the results
2. The two main categories of research studies are _____ and _____

Write T (true) or F (false) in the given bracket:

3. Refusal of the patient to participate in a study must never interfere with the doctor-patient relationship [_____]
4. For every research project there is one single “best design” to answer the question.[_____]

Encircle the correct answer for the following MCQs

5. Which of the following is **NOT** essential for formulating a research question
 - a. Statistical analysis
 - b. Intervention
 - c. Population/patients
 - d. Outcome

6. A particular aspect, which has **NOT** been clarified adequately in the “Material and Method” section because the same would have become unnecessary voluminous may be elaborated in:
 - a. Analysis
 - b. Review of literature
 - c. Annexure
 - d. References

7. A research question should be formulated
 - a. After collecting all data
 - b. Before publication
 - c. Before creating research plan
 - d. After review of literature

8. To narrow down your literature search which Boolean Operator will you use?
 - a. AND
 - b. OR
 - c. NOT

9. Why do you need to review the existing literature?
 - a. You enjoy reading the academic research on your topic.
 - b. Because without it, you could never reach the required word-count.
 - c. To find out what is already known about your area of interest.
 - d. To make sure you have a long list of references.

10. The feasibility of a research study should be considered in light of
 - a. Cost and time required to conduct the study
 - b. Skills required of the researcher
 - c. Potential ethical concern
 - d. All of the above

11. Research participants are described in details in which section of the protocol/research plan?
- a. Introduction
 - b. Method
 - c. Data analysis
 - d. Discussion
12. Which is the sampling method used to conduct a RCT (Randomized Clinical Trial)?
- a. multi stage sampling based allocation of treatment to patients
 - b. purposive sampling of patients to different regimens
 - c. allocation of two treatments alternatively on patients as they come in hospital
 - d. stratification after Simple Random Sampling
13. An investigator wants to study the association between maternal intake of iron supplements (Yes or No) and birth weight (in grams) of newborn babies. He collected relevant data from 100 pregnant women and their newborn. What statistical test of significance would be appropriate here?
- a. Paired t test
 - b. Unpaired t test
 - c. ANOVA
 - d. Chi Square test
14. While choosing a test for statistical analysis, which one of the following statements is taken into consideration?
- a. Scale of measurement of data
 - b. How many samples or groups
 - c. If samples, are independent/ dependent
 - d. Type of distribution
 - e. All of the above
15. Advantages of a case control study are all of the following **EXCEPT**
- a. Useful for rare outcomes
 - b. Short duration
 - c. Yields prevalence and incidence
 - d. Relatively inexpensive

ANNEXURE VI
ASSIGNMENT

First Workshop- Research Methodology
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Group work

Select appropriate research design and prepare protocol for the below mentioned research topics. Write the protocol under the following headings:

1. Research Title
2. Research Question, Aims & Objectives
3. Introduction
4. Material & Methods
5. Statistical analysis
6. References
7. Appendices

Group-1

Conditions presenting as acute abdomen in the first trimester of pregnancy.

Group-2

NSAID use and acute non-variceal bleeding of the upper gastrointestinal tract.

Group-3

Single dose versus divided dose gentamicin in gram-negative infections.

GROUP 1	GROUP 2	GROUP 3
Dr. Mittal Panchal	Dr. Bhoomika Shah	Dr. Bhavik Prajapati
Dr. Ashita Vyas	Dr. Falguni Patel	Dr. Andrew Mark
Dr. Manthan	Dr. Dushyant Barot	Dr. Gaurang Anandpara
Dr. Nilay Thakore	Dr. H.L. Kubavat	Dr. Ankit Panchmatia
Ms. Nidhi Sheth	Dr. Janak Chokshi	Dr. Jigar Patel
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