

**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**

**Programme of Advanced Research Methodology Workshop**

**Day 1 – 24<sup>th</sup> September 2018**

<b>Time</b>	<b>Topic</b>	<b>Method</b>	<b>Facilitators</b>
0930 -1000	Registration and breakfast		
1000 -1045	Pretest		
1045- 1130	L1:Introduction to research methodology	L	Dr jai kini
1130-1145	Tea Break		
1145 -1230	L2:Framing Research question, hypothesis	L	Dr Swati Meshram
1230-1315	GA 1 : Each group will 1. Select one research topic 2. Assess topic on FINER criteria 3. Present the research question for the topic & mention type of research question. 4. Mention the population 5. Mention the variables 6. Mention the hypothesis ( if any) Mention the type of hypothesis	GA	Dr Swati Meshram Dr Jai Kini
1315-1345	Lunch		
1345-1430	L3: Classification of study designs : Descriptive study designs	L	Dr. Swati Meshram
1430-1500	GA 2: Issues in descriptive studies. -Research question -Population types -Sampling and sample size -Measurements -Bias in descriptive studies- selection bias & measurement bias -Ethical issues - Analysis: Hypothesis generation	GA	Dr Swati Meshram Dr Jai Kini Example/s would be taken from descriptive studies suggested by participants. Attempt should be made to select one community based and one hospital based study.
1500-1545	LD1: Faculty member would present & discuss two published studies -Research question -Population types -Sampling and sample size -Measurements -Bias in descriptive studies- selection bias & measurement bias -Ethical issues - Analysis: Hypothesis generation	LD	Dr Swati Meshram Dr Jai Kini Selection should include one cross sectional and one longitudinal study.
1545-1630	L4:Case control studies	L	Dr Swati Meshram
	GA 3: Issues in case control/ cohort studies. -Research question -Population types -Sampling and sample size - Sources & selection of cases & controls/comparison -Measurement of exposure -Bias in case control studies- selection, measurement, confounding- matching - Analysis: statistical testing , odds ratio, RR, AR, multivariate analysis	GA	
1730- 1745	Feedback Forms		

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**Day 2- 25<sup>th</sup> Sept 2018**

<b>Time</b>	<b>Topic</b>	<b>Method</b>	<b>Facilitators</b>
0930- 1000	Tea and breakfast		
1000-1030	Clinical trial Recapitulation by participants GA4:Participant's presentations : Group 1- Types of bias in research and measures to minimise them.	GA	Dr. Rutuja Hadye
1030-1100	GA 6: Issues in clinical trials. -Research question -Population types -Sampling and sample size - Allocation methods- Randomization, blinding. -Bias - selection, classification, follow up, confounding - Analysis: ITT, per protocol, NNT - Interpretation of results (Example/s to be taken from studies suggested by participants. Randomization exercise by all. Actual demo of registering a trial. Some discussion on unethical trials)L5:Objectives of workshop	L	Dr. Rutuja Hadye
1100-1145	L6:Cohort studies	L	Dr. Padmaja
1145-1245	GA 5: Issues in cohort studies. -Research question -Population types -Sampling and sample size - Sources & selection of cases & controls/comparison -Measurement of exposure -Bias in case control studies- selection, measurement, confounding- matching - Analysis: statistical testing , odds ratio, RR, AR, multivariate analysis	GA	Dr. Padmaja/ Dr jai Kini Moderator will select case control/ cohort study from the groups and lead the discussion.
1245 -1330	Lunch		
1330-1430	LD 2: Presentation of at least two clinical trials & discuss: -Research question -Population types -Sampling and sample size - Allocation methods- Randomization, blinding. -Bias - selection, classification, follow up, confounding - Analysis: ITT, per protocol, NNT - Interpretation of results		Dr padmaja
1430-1530	L 12:-Literature Search	GA	vasumathi
1530-1630	GA 10: Literature Search Activity Online Literature Search by participants. Faculty to moderate	LD	vasumathi
1630-1645	Feedback forms		

**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**  
**Programme of Advanced Research Methodology Workshop**

**Day 3- 26<sup>th</sup> sept 2018**

<b>Time</b>	<b>Topic</b>	<b>Method</b>	<b>Facilitators</b>
0930-1000	Tea and breakfast		
1000-1030	Recapitulation GA 7:Participant's presentations : Group 2- Association & causation	GA	
1030-1130	L 8:Types of variables(data), conversion of data from one Type to other, scales of measurement	L	Dr. Prshant tamboli
1130-1230	LD3:Data presentation. Faculty will demonstrate use of MS excel in preparing various types of data presentations.	LD	Dr Devangini Broker
1230-1315	<b>Lunch</b>		
1315-1430	L9: Descriptive statistics( concept of central tendency & dispersion, normal curve, skewed distribution)	L	Dr Devangini
1430-1515	L 10: Role of chance , bias , confounding & interaction	L	Dr Prashant
1515-1600	LD 4 : Sample size determination ( demo of use of computers)	LD	Dr Devangini
1600-1645	L13 :Methods of data collection Questionnaire designing	L	Dr Devangini
1645-1730	GA 11: Exercise on good and bad questionnaire	GA	Dr Prashant
1645-1700	Feedback Forms		

**Day 4 - 27 th sept**

<b>Time</b>	<b>Topic</b>	<b>Method</b>	<b>Facilitators</b>
0930- 1000	Tea and breakfast		
1000-1030	Recapitulation by participants GA4:Participant's presentations : Group 1- Types of bias in research and measures to minimise them.	GA	
1030-1100	L5:Objectives of workshop	L	Dr.Mohan Khamgaonkar
1100-1145	L 10 : Salient features of MUHS Ph.D. direction		Dr.Mohan Khamgaonkar
1145-1230	Recapitulation by participants GA 8 :Participant's presentations : Group 3- Criteria for selection of statistical test-type & distribution of data, type of sample, objectives etc		Dr samel
1230-1315	Recapitulation by participants GA 9: Participant's presentations Group 4 : Sampling methods	GA	Dr samel
1315-1400	Lunch		
1400 - 1500	L 12:Evaluation of a diagnostic test (ROC curve & it's interpretation) Exercise to calculate sensitivity , specificity	L	Dinesh Samel

	TEA will be served inside		
1500-1600	GA 12: Research priorities in various disciplines	GA	Dr KINI
1645 -1700	Feedback Forms		

**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK**

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**Day 5- 28<sup>th</sup> Sept**

Time	Topic	Method	Facilitators
0930-1000	Tea and breakfast		
1000-1030	Recapitulation by participants GA 13: Participant's presentations Group 5 : Interpretation of statistical test- probability , significance, CI, power etc	GA	Dr Pravin ayre
1030-1130	L 14: Ethics in health sciences research(ICH-GCP, Indian GCP, ICMR guidelines)	L	Dr Padmaja
1130-1300	LD 5 : Demonstration of Epi Info and Open EPI – the WHO soft ware	LD	Dr Samel
1300-1345	Lunch		
1345-1445	L 15: Inferential statistics & statistical fallacies:- Parametric, non parametric , which test to use , when & why( a case of ANOVA , also post hoc tests)	L	Dr Samel
1445-1530	LD 6 : Use of computers in inferential statistics	LD	Dr samel
1530-1615	L 16: Regulatory aspects in research CONSORT, AYUSORT, ICH-GCP, Trial Registration, Role of FDA	L	
1615-1700	L 17: Proposal writing for funding agencies Protocol writing	L	Dr supriya Bhalerao
1700-1715	Feedback Forms		

**Day 6- 29<sup>th</sup> sept**

Time	Topic	Method	Facilitators
0900-1000	Tea and breakfast		
1000-1030	Recapitulation by participants GA 15: Participant's presentations Group 6 : Implementation of research- Gantt charting , operational definitions/criteria/classifications, pilot study , dummy tables, monitoring etc	GA	Dr suriya
1030-1130	L 18: Writing dissertation: Data Reporting Writing for Publication	L	Dr supriya
1130-1230	GA 16 : Critical evaluation of journal article Each group will discuss the article allotted/selected & present. The articles should represent all study designs.	GA	Dr supriya
1230-1330	L 19: Qualitative research methods Question answer session	L	Dr Padmaja
1330-1400	Lunch		
1400-1445	L 20 : Meta Analysis	L	Dr Padmaja

	Demonstration and Group Activity		
1445-1530	Post Test		
1530-1630	<b>Project Presentations By Participants</b>		Dr Kini
1630-1700	Valedictory session		

L= Lecture ; GA = Group Activity ; LD = Lecture Demonstration