

FINAL YEAR

Subject No. 4

INTRODUCTION TO NURSING RESEARCH AND STATISTICS

Total Hours: 195

Theory Hours: 075

Practical Hours: 120

SECTION 'A' - INTRODUCTION TO NURSING RESEARCH

Total Hours: 160

Theory Hours: 40

Practical Hours: 120

AIM:

- The course is designed to assist the student to develop an understanding of basic concepts of research, use the findings of nursing research in nursing practice, apply the knowledge in conducting project(s) and solve the problems related to nursing using scientific methods.

OBJECTIVES:

At the end of course the students are able to:

- Define the terms and concepts of nursing research.
- Identify needs and scope of nursing research.
- Identify and define a research problem.
- Locate and list sources of literature for a scientific study.
- Describe different research approaches, methods of data collection and sampling techniques with a special reference to survey method.
- Develop tool for data collection.
- Conduct a research project.

CONTENTS:

Unit I -Introduction:

- Definition, Meaning, Importance of research in Nursing. Terminology. Future directions and Priorities. Problem Statement.

Unit II -Research Process:

- Nursing Process. Scientific Methods. Similarities and Differences. Problem Solving.

Unit III -Research Utilization:

- Evidence Based Practice. Review of Literature. Research Critique: Definition, purposes, aspects. Barriers of research utilization.

Unit IV -Approaches to Nursing Research/Research Methodology/Research Designs:

- Definition. Classification of Research Designs. Difference between qualitative and quantitative research. Definition, Purposes, Characteristics and limitations of – Experimental, Observational and Historical studies.

Unit V -Sampling and Data Collection:

- Definition, Population. Sampling technique. Importance of sampling. Methods of data collection- Structured, unstructured. Types of tools/instruments. Preparation of data collection tools/instruments. Validity and reliability. Pilot study.

Unit VI -Analysis, interpretation and communication:

- Compilation and presentation. Interpretation of data. Writing Research report. Communicating results.

INTRODUCTION TO NURSING RESEARCH AND STATISTICS

Section A: Introduction to Nursing Research

<i>Unit No. & Hrs.</i>	<i>Objectives</i>	<i>Contents with distributed hours</i>						
		<i>Must Know</i>			<i>Desirable to Know</i>		<i>Nice to Know</i>	
I (6 Hrs)	At the end of unit students are able to: Knowledge: Discuss meaning, purpose and importance of research in nursing. Skill: Use appropriate terminologies. Attitude: Contribute in ongoing research activities while working.	Introduction: <ul style="list-style-type: none"> • Definition, Meaning, Purpose, Importance of research in nursing. (2Hrs) • Terminology.(1Hr) 			<ul style="list-style-type: none"> • Problem Statement. (2Hrs) 		<ul style="list-style-type: none"> • Future Direction & Priorities. (1Hr) 	
Unit:1 Introduction								
Course outcome		Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO:1-Define the Research		3	3	1	2	3	3	3
CO:2-Define Nursing Research		3	3	3	3	3	3	3
CO:3-Enlist the purposes of research in nursing		3	3	3	3	3	3	3
CO:4-Discuss the importance in Nursing research		3	3	3	3	3	2	3
CO:5-Define various terminology used in nursing research(Pilot study, Assumption , Hypothesis, sample, Population etc.)		3	3	3	2	3	3	3
CO:6-Describe the steps to find out the Problem Statement		3	3	3	3	3	3	3

CO:7-Discuss the Future direction in nursing research.		3	3	2	2	3	3	3
II (3Hrs)	At the end of unit students are able to: Knowledge: Discuss the characteristics and scope of nursing research and compare the nursing process with research process. Skill: Use the problem solving approach in nursing practice. Attitude: Develops positive attitude towards use of scientific approach in nursing practice.	<ul style="list-style-type: none"> Research Process: Characteristics of research, scope of nursing research. Research Process & Nursing process: Similarities and Differences. Scientific Methods. (2Hrs) 			<ul style="list-style-type: none"> Problem solving. (1 Hr) 			
Unit:2 Research Process								
Course outcome		Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO:1 Define research process and list down the Characteristics of research process.		3	3	3	2	3	3	3
CO:2 Explain the scope of nursing research.		3	3	2	2	3	3	3
CO:3 Identify the steps of nursing process		3	3	3	3	3	3	3
CO:4 Explain the scientific method of research process.		2	3	3	3	3	3	3
CO:5 Define solving problem and describe the steps of solving problem.		3	3	3	3	3	2	3

III (4Hrs)	At the end of unit students are able to: Knowledge: Elaborate the uses of nursing research in nursing practice. Skill: Find and read appropriate literature for research. Attitude: Does and accepts critique on research work which contributes in enhancing quality.	<ul style="list-style-type: none"> • Research Utilization: • Evidence Based practice. • Review of Literature.(2Hrs) 			<ul style="list-style-type: none"> • Research Critique- Definition, purposes and aspects. (1Hr) 		<ul style="list-style-type: none"> • Barriers of research utilization. (1Hr) 	
Unit:3 Research Utilization								
Course outcome		Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO: 1 Define Evidence Based practices		3	3	2	3	3	3	3
CO: 2 Discuss the steps of Evidence Based practices.		3	3	3	3	3	3	3
CO: 3 Discuss the Purposes of Evidence Based practices.		3	2	3	3	3	3	2
CO: 4 Define Review of Literature		3	2	3	3	3	3	3
CO: 5 Describe the importance and steps of review of literature in research.		3	3	3	3	3	3	3
CO: 6. Identify the Purposes of review of literature in research.		3	3	2	2	3	3	3

CO: 7. Explain the Sources of review of literature.	3	3	3	3	3	3	3	
CO: 8. Enlist the elements of written literature	2	3	3	3	3	3	3	
CO: 9. Define Research critique	3	2	3	3	2	3	3	
CO: 10. Describe the major guidelines for writing a research critique.	3	2	3	3	3	3	3	
CO: 11. Identify the purposes and aspects of research critique.	3	3	2	3	3	3	3	
CO: 12. Explain the Barriers of research utilization.	3	3	3	3	3	3	3	
IV (12 Hrs)	At the end of unit students are able to Knowledge: Understand and discuss various research designs. Skill: Choose correct research design, analyze and develop research tools correctly. Attitude: Understand the limitations of each research design.		<ul style="list-style-type: none"> • Approaches to Nursing Research/Research Methodology/Research Designs: Definition, Classification of research designs.(4Hrs) • Characteristics of qualitative and quantitative research. (1Hr) • Definition, purposes, characteristics of- Experimental studies, Observational studies and Historical studies. (3Hrs) 		<ul style="list-style-type: none"> • Difference between qualitative and quantitative research. (2Hrs) 		<ul style="list-style-type: none"> • Limitations of experimental studies, observational studies and historical studies. (2Hrs) 	
Unit:4 • Approaches to Nursing Research/Research Methodology/Research Designs								
Course outcome		Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO:1 Define the Research Design.	3	3	2	3	3	3	3	
CO:2 Enlist the elements of Research Design.	3	3	3	3	3	3	3	

CO:3 list down the factors affecting selection of research design	3	2	3	3	3	3	2	
CO:4 Explain the types of research design	3	2	3	3	3	3	3	
CO:5 Define Experimental design	3	3	3	3	3	3	3	
CO:6. Illustrate the Limitations of experimental studies, observational studies and historical studies	3	3	2	2	3	3	3	
CO:7. Explain the characteristics Experimental studies	3	3	3	3	3	3	3	
CO:8. Explain the characteristics of Observational studies and Historical studies	2	3	3	3	3	3	3	
CO:9. Recognize the Difference between qualitative and quantative research	3	2	3	3	2	3	3	
V (12Hrs)	At the end of unit students are able to Knowledge: Understand and explain the methods of data presentation. Skill: Present research data effectively. Attitude: Develop research attitude for improving the quality of nursing care.		<ul style="list-style-type: none"> • Sampling and Data Collection: Population, Techniques of sampling. (2Hrs) • Importance of sampling. (1Hr) • Methods of data collection- Structured, unstructured. (2Hrs) • Validity and reliability. (1Hr) • Pilot Study (1Hr) 			• Preparation of data collection tools/instruments. (3Hrs)	• Types of tools/instruments. (2Hrs)	
Unit:5 Sampling and Data Collection								
Course outcome		Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO:1. Define sampling process	3	3	1	2	2	3	3	

CO:2.Define population	3	3	3	3	3	3	3	
CO:3.List down the purposes of sampling.	3	3	3	3	3	3	3	
CO:4. Explain the Importance of sampling.	3	3	2	2	2	2	3	
CO:5.Discuss the method of data collection-	3	3	3	2	3	3	3	
CO:6.Define Validity	3	3	3	3	3	3	3	
CO:7.Enlist the types of validity	3	3	2	2	3	3	3	
CO:8.Explain the important to measure the reliability of a research instrument	3	3	2	2	3	3	3	
CO:9.Identify the difference between Validity and reliability.	3	3	1	2	2	3	3	
CO:10. Explain Pilot Study	3	3	3	3	3	3	3	
CO:11 Describe the Preparation of data collection tools/instruments.	3	3	3	3	3	3	3	
CO:12. Recognize the types of tools/instruments	3	3	2	2	2	2	3	
VI (8 Hrs)	At the end of unit students are able to Knowledge: Understand and explain importance of communicating research findings. Skill: Communicate research findings effectively. Attitude: Conduct research studies and/or contribute effectively in other's research studies.		<ul style="list-style-type: none"> Analysis, interpretation and communication: Analysis, Interpretation and Communicating Research findings. Compilation and Presentation. Interpretation of data. (4 Hrs) 			<ul style="list-style-type: none"> Communicating Research findings. (2Hrs) 		<ul style="list-style-type: none"> Writing Research Report.(2Hrs)
Unit:6 Analysis, interpretation and communication								
Course outcome		Program outcome						
		Clinician/Nurse educator	Professional	Communicator	Leader and member of the health care team	Lifelong learner	Critical thinker	Researcher

				and system			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO:1. Define Analysis	3	3	1	2	3	3	3
CO:2. Explain Interpretation and communicating research findings	3	3	3	3	3	3	3
CO:3. Illustrate the communicating research findings	3	3	3	3	3	3	3
CO:4. Recognize the steps of writing research report	3	3	3	3	3	2	3

TEACHING STRATEGY:

Total Teaching Hours: 108

Lecture: 45

Lab: 15

Practical: 48

TEACHING METHODS

- Lecture, Group Discussion.

ASSIGNMENTS:**Theory:**

Sr. No.	Assignments	No./Quantity	Marks Per Assignment	Total Marks
1	Tutorials	Two	15	30
Total Marks				30

- Internal Assessment Marks of Nursing Research and Statistics shall be amalgamated as one subject 'Nursing Research and Statistics'.

Practical:

Sr. No.	Assignments	No./Quantity	Marks Per Assignment	Total Marks
1	Research Project– Group Work	One	100	100
Total Marks				100

Evaluation of Group Project (Nursing Research and Statistics):

- There is no University examination for Group Project. The marks obtained by the student in Group and Viva Voce shall not be depicted on the mark list issued by the University.
- However, Completion of Group Project and obtaining 50% marks in the group project is prerequisite for eligibility to appear for University Examination.
- The guide shall evaluate the progress periodically and give feedback to the students. At the end of year, the guide shall assign marks out of 50 for the performance during the year.
- Evaluation of Group Project and Viva Voce on Group Project shall be conducted for 50 marks at the time of Prelim Examination of other subjects by the College.
- The marks given by the guide and the marks obtained in the evaluation of project and viva voce on group project shall be included in marks obtained in the **assignments** while calculating internal assessment marks of **Theory Paper of Nursing Research and Statistics**.

A. V. AIDS:

- Over head Projector. L.C.D, Computer Assisted learning. Flip charts. Posters. Black Board

LIST OF RECOMMENDED BOOKS:

- Basavanthappa B.T, Nursing Research
- Garrett H.E, Statistic in psychology & education
- Mahajan B.K. Methods in Biostatistics.
- Rose Hott & Budin. Notter's Essentials of Nursing Research 5th edition.
- Practical Nunshall, Nursing Research 3rd edition.
- P.K. Indirani, Research methods for Nurses.
- Polit, DF, & Beck C.T, Nursing Research principles & methods 7th edition.
- Polit, Beck & P Hungler, Nursing Research methods, Appraisal & Utilization
- Clifford et al, Getting Research into practice.
- Macnee C.L Understanding Nursing Research: Reading & using Research in Practice.