

## Subject No. 6

# INTRODUCTION TO NURSING RESEARCH AND STATISTICS

Total Hours: 195

Theory Hours: 075

Practical/Clinical Hours: 120

## SECTION A - INTRODUCTION TO NURSING RESEARCH

Total Hours: 160

Theory Hours: 40

Practical/Clinical 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:

1. Define the terms and concepts of nursing research.
2. Identify needs and scope of nursing research.
3. Identify and define a research problem.
4. Locate and list sources of literature for a scientific study.
5. Describe different research approaches, methods of data collection and sampling techniques with a special reference to survey method.
6. Develop tool for data collection.
7. 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, **sources of knowledge**. Similarities and Differences. Problem Solving. **Steps of Research process**

#### 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. **Phenomenology, Grounded theory**.

#### 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. **Feasibility** 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**

Unit No. & Hrs.	Objectives	Contents with distributed hours										
		Must Know 60%			Desirable to Know 30%		Nice to Know 10%					
I (6 Hrs)	At the end of unit students are able to: <b>Knowledge:</b> Discuss meaning, purpose and importance of research in nursing. <b>Skill:</b> Use appropriate terminologies. <b>Attitude:</b> Contribute in ongoing research activities while working.	<b>Introduction:</b>			• Problem Statement. (2Hrs)	• Future Direction & Priorities. (1Hr)						
		<ul style="list-style-type: none"> <li>• Definition, Meaning, Purpose, Importance of research in nursing. (2Hrs)</li> <li>• Terminology.(1Hr)</li> </ul>										
		Clinician/Nurse Educator	Professional	Communicator					Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		3	2	2					2	3	2	2
		CO-1 Define the Nursing research and explain the its purposes and important of nursing research										
II (3Hrs)	At the end of unit students are able to: <b>Knowledge:</b> Discuss the characteristics and scope of nursing research and compare the nursing process with research process. <b>Skill:</b> Use the problem solving approach in nursing practice. <b>Attitude:</b> Develops positive attitude towards use of scientific approach in nursing practice.	<ul style="list-style-type: none"> <li>• Characteristics of research, scope of nursing research</li> <li>• Research Process &amp; Nursing process: Similarities and Differences. <ul style="list-style-type: none"> <li>• <b>Steps of Research process</b></li> </ul> </li> <li>• Scientific Methods. (2Hrs) <b>sources of knowledge</b></li> </ul>			• Problem solving. (1 Hr)							
		Clinician/Nurse Educator	Professional	Communicator					Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
		3	3	2					2	3	3	3
		CO-2 Interpret the meaning of terminology in research										
CO-3 Explain the problem statement												
CO-4 Describe the future direction and priorities area of nursing research												

CO-1:- Describe the characteristics and scope of nursing research		2	1	1	2	2	2	2
CO-2:-Differentities between the steps of research process and nursing process		3	3	1	2	2	3	3
CO-3:-Demonstrate the problem solving approach in nursing practice		3	2	2	1	2	3	3
CO-4:-Illustrate the scientific method approach in nursing practice.		3	2	2	1	2	3	3
III (4Hrs)	At the end of unit students are able to: <b>Knowledge:</b> Elaborate the uses of nursing research in nursing practice. <b>Skill:</b> Find and read appropriate literature for research. <b>Attitude:</b> Does and accepts critique on research work which contributes in enhancing quality.	<b>Research Utilization:</b> • Evidence Based practice. • Review of Literature (2Hrs)			• Research Critique- Definition, purposes and aspects.(1Hr)		• Barriers of research utilization.(1Hr)	
		Clinician/Nurse Educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
CO-1:- Elaborate evidence based practice		3	3	2	3	3	3	3
CO-2:- Find and read appropriate literature for research		3	3	2	3	3	3	3
CO-3:- Describe the research critique in term of its definition, purposes and aspects		2	2	1	2	2	2	3
CO-4:- Explain the barriers of research utilization		2	1	1	1	2	2	2
IV (10 Hrs)	At the end of unit students are able to <b>Knowledge:</b> Understand and discuss various research designs. <b>Skill:</b> Choose correct research design, analyze and develop research tools correctly. <b>Attitude:</b> Understand the limitations of each research design.	<b>Approaches to Nursing Research/Research:</b> • Methodology/Research Designs: Definition, Classification of research designs. (3Hrs) • Characteristics of qualitative and quantitative research. (1Hr) • Definition, purposes, characteristics of- • Experimental studies, • Observational studies and			• Difference between qualitative and quantitative research. (1Hr)		• Limitations of experimental studies, observational studies and historical studies. (2Hrs)	

		<ul style="list-style-type: none"> <li>Historical studies. (3Hrs) <b>Phenomenology, Grounded theory.</b></li> </ul>						
		Clinician/Nurse Educator	Professional	Communicator	Leader and member of the health care team and system	Lifelong learner	Critical thinker	Researcher
CO-1:- Define the research designs and explain the classification of its		3	3	2	2	3	3	3
CO-2:- Describe the characteristics of qualitative and quantitative research designs and differences between qualitative and quantitative research design		3	3	2	2	3	3	3
CO-3:- Define the experimental study design and describe its purposes, characteristics and limitations		2	3	1	1	2	2	2
CO-4:- Define the observational study design and describe its purposes, characteristics and limitations		2	3	1	1	2	2	2
CO-5:- Define the historical study design and describe its purposes, characteristics and limitations		2	3	1	1	2	2	2
CO-5:- Define the phenomenology study design and describe its purposes, characteristics and limitations		2	3	1	1	2	2	2
CO-6:- Define the grounded study design and describe its purposes, characteristics and limitations		2	3	1	1	2	2	2
V (10Hrs)		<b>Sampling and Data Collection:</b> <ul style="list-style-type: none"> <li>Population,</li> <li>Techniques of sampling. (2Hrs)</li> <li>Importance of sampling. (1Hr)</li> <li>Methods of data collection- Structured, unstructured. (1Hr)</li> <li>Validity and reliability. (1Hr) <b>Feasibility.</b></li> <li>Pilot study. (1Hr)</li> </ul>			<ul style="list-style-type: none"> <li>Preparation of data collection tools/instruments. (2Hrs)</li> </ul>		<ul style="list-style-type: none"> <li>Types of tools/instruments. (2Hrs)</li> </ul>	
		Clinician/Nurse	Professional	Communicator	Leader and	Lifelong	Critical	Researcher



**TEACHING STRATEGY:**

Total Teaching Hours: 160

Lecture: 40

Practical (Lab work): 120

**TEACHING METHODS:**

- Lecture, Demonstration, Symposium, Group Discussion & **Tutorial**

**ASSIGNMENTS:****Section 'A' Introduction to Nursing Research****Theory:**

Sr. No	Assignments	No./Quantity	Marks Per Assignment	Total Marks
1	Home assignment	One	20	20
<b>Total Marks</b>				<b>20</b>

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
<b>Total Marks</b>				<b>100</b>

**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 5<sup>th</sup> edition.
- Practical Nunshall, Nursing Research 3<sup>rd</sup> edition.
- P.K. Indirani, Research methods for Nurses.
- Polit, DF, & Beck C.T, Nursing Research principles & methods 7<sup>th</sup> 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.