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"Ill-health of body or of mind, is defeat. Health alone is victory."
—Thomas Carlyle

Nursing Research

SYNOPSIS

INTRODUCTION

Nursing research provides evidence used to support nursing practices, education, administration and management.

DEFINITION

Nursing Research is defined as "systematic inquiry designed to develop knowledge about issues of importance to the nursing profession, including nursing practice, education, administration, and informatics"—Polit and Beck.

STEPS IN THE QUANTITATIVE RESEARCH PROCESS

Conceptual Phase

- Formulating and delimiting the problem.
- Reviewing the literature.
- Developing a theoretical framework.
- Identifying the research variables.
- Formulating hypotheses.

Design and Planning Phase

- Selecting a research design.
- Specifying the population.
- Operationalizing the variables.
- Conducting the pilot study/making revisions.

Empirical Phase

- Selecting the sample
- Collecting the data
- Organizing data for analysis

Analytic Phase

- Analyzing the data
- Interpreting the results

Dissemination Phase

- Communicating results

STEPS IN THE QUALITATIVE RESEARCH PROCESS

- Define/clarify broad topic
- Review of the literature
- Identify site/setting
- Obtain access
- Obtain and test equipment
- Begin data collection/analysis
- Identify themes/categories
- Triangulation/saturation
- Formulate hypotheses/theories
- Communicate findings

RESEARCH PROCESS

Research Problem

- It is the first step in research process.
- A research problem is a question that researcher wants to answer or a problem that a researcher wants to solve.
- The research problem must be identified in terms of its potential contribution to the society, clients, nurses and the healthcare system.

Key Point

Social relevance is the important concern while choosing research problem.

Sources of Research Problem

- Personal and practical experiences
- Critical appraisal of literature
- Previous research
- Existing theories
- Performance improvement activities
- Social issues
- Brainstorming
- Intuition
- Folklores (common beliefs)
- Field exposures
- Consultation with experts
- Patient feedback

Formulating Research Problem Statement

- Research problem statement could be declarative or interrogative format
- **Declarative format:** Statement is in declarative form. For example
  - A descriptive study on prevalence of needle stick injury among students nurses in AIIMS, Delhi

Characteristics of Quantitative Research Design

- Objective approach
- Testing of theory
- Deductive reasoning
- Large sample size
- To generalize the findings

Characteristics of Qualitative Research Design

- Subjective approach
- Development of new theory
- Inductive reasoning
- Small sample size
- To study the phenomena/characteristics in depth

Key Points

- Correlational research is a type of descriptive research.
- Qualitative research designs include phenomenology, ethnography, grounded theory, historical research, and case study.
- **Triangulation** refers to the use of multiple **methods** or data sources in qualitative **research** to develop a comprehensive understanding of phenomena.

Experimental Designs

- **Experimental:** Manipulation + Control + Randomization
- **Quasi-experimental:** Manipulation + Control OR Randomization
- **Pre-experimental:** Manipulation only

Quantitative Research Approach

- The researcher plays an active role by introducing the intervention.
- Characteristics of true experiments are:
  - **Manipulation:** Experimenter does something to at least some subjects (experimental manipulation/intervention).
  - **Control:** Experimenter introduces controls over the experimental situation. Control can be achieved.
  - Manipulating:
    - Randomizing.
    - Carefully preparing experimental protocols.
    - And/or using a control group.
  - **Characteristics-manipulation, control, randomization:** Experimenter assigns subjects to a control or experimental group on a random basis. Methods of randomization includes flipping a coin, matching, draw of lots (pulling names from a hat), table of random numbers, cluster randomization (**reduces possibility of contamination**), and Computer-generated random numbers.

Basic Experimental Designs (True Experimental)

- Pretest post-test design (before-after design; **classic experimental design**).
- Post-test only design (after-only design).
- Solomon four-group design.
- Factorial design.
- Randomized block design.
- Crossover design (repeated measure design).

Pretest Post-Test Design (Table 1)

TABLE **1:** Schematic presentation of pretest–post-test design

Group	Pretest	Intervention	Post-test
R C	O_1		O_2
R E	O_1	x	O_2

R-Randomization; C-Control; E-Experimental; O_1-Pretest Observation; X-Intervention, O_2- Post-test observation

- Classic experimental design and it is most commonly used in nursing research.
- Two randomized groups; One group receives the experimental treatment and the other group receives no treatment, a placebo treatment, or the usual treatment.
- Treatment is under the control of the researcher.
- The dependent variable is measured twice, before and after the manipulation of the independent variable.
- Comparison of the post-test scores allows determining the effect of the independent variable.

Post-Test Only Design (Table 2)

TABLE **2:** Post-test only design (after-only design)

Group	Pretest	Intervention	Post-test
R C			O
R E		x	O

R-Randomization; C-Control; E-Experimental; O-Post-test Observation; X-Intervention

- For both the groups, observation was done only after intervention was administered to experimental group.

Solomon Four Group Design (Table 3)

TABLE **3:** Solomon four group design

Group	Pretest	Intervention	Post-test
RC	O_1		O_2
RC			O_2
RE	O_1	x	O_2
RE		x	O_2

RR-Randomization; RC-Control; RE-Experimental; O_1-Pretest Observation; X-Intervention, O_2- Post-test observation

- Involves two experimental groups and two control groups.
- One experimental and one control group are administered pretest and other groups are not.
- Allows the effects of pretest measure and intervention to be segregated.

Factorial Design (Table 4)

- Factorial design involves measuring the effect of two or more independent variables on a dependent variable.

- The researcher manipulates two or more independent variables simultaneously to observe their effects on the dependent variables.
- This design is particularly useful when there are more than two independent variables to be tested.
- For example, A researcher wants to test the effectiveness of two psychosocial therapies and two pharmacological interventions on tobacco cessation amongst tobacco users. In this example, we have two factors: Type of psychosocial therapy and type of pharmacological therapy.

Factor 1 (Psychosocial intervention): Two levels—brief intervention (α1) and motivational counselling (α2)

Factor 2 (Pharmacological intervention): Two levels—nicotine gum (β1) and nicotine patch (β2).

For example, participants assigned to the α1β1 cell (Table 4) will receive brief intervention and nicotine gum therapy.

TABLE **4: Schematic presentation of factorial design**

Type of pharmacological therapy ↓	Type of psychosocial therapy	
	Brief intervention (β1)	Motivational counselling (β2)
Nicotine gum (α1)	α1 β1	α1 β2
Nicotine patch (α2)	α2 β1	α2 β2

Thus, the design shall test the main effect of using a nicotine gum and nicotine patch—the main effect of the type of counseling used. The superiority of the design lies in the fact that it shall assess the interaction effects of type of pharmacological therapy and type of psychosocial therapy used.

Randomized Block Design

- Randomized block design divides study participants (sample) into groups or blocks (subgroups) of equal size based on certain characteristics, and then randomly assigns the treatment to participants in each block.
- Randomized block design is used to block the effect of an uninterested variable (confounding variable) on the outcome variable, e.g., Male and Female.

Example 1: As shown in Figure 1, A researcher wanted to study effectiveness of a physical training program on Activities of Daily Living among Dementia patients. The physical capability varies between male and female gender which may affect the outcome of the study. So, the researcher decided to block on gender to control its effect on outcome variable. The participants are divided into blocks of male and female and then the treatment (physical training program) is allocated randomly within each block.

Crossover Design (Repeated Measure or Counterbalanced Design)

- Involves exposure of same subjects to more than one experimental treatment
- Subjects are randomly assigned to different orderings of treatment.
- Subjects serve as their own control.
- **Extremely powerful design** but inappropriate for certain types of research due to problem of carry-over effects.

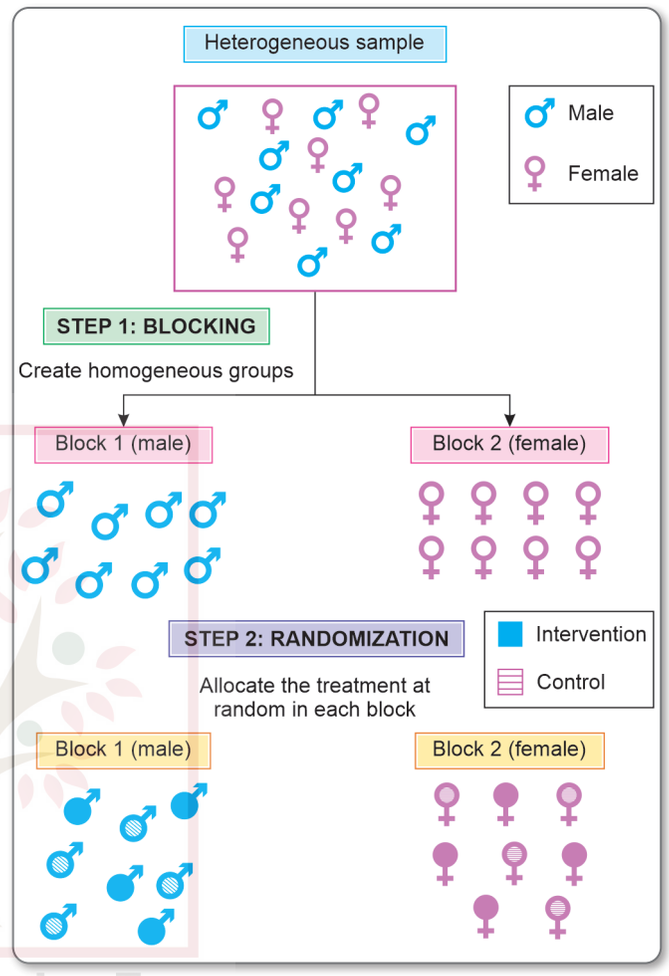

Figure 1: Schematic diagram of randomized block design

E.g., patient A is randomized to receive Treatment #1 for a period of time. After completing Treatment #1, the patient then "crosses over" and receives Treatment #2.

Randomized Controlled Trial

- **Blinding:** The masking of a clinical research study's group assignment from investigators and/or subjects. 3 types of blinding
  - Single blinded – Only subjects are blinded
  - Double blinded – Investigators and subjects are blinded
  - Triple blinded – Investigators, subjects and individual involves in analysis or planning are blinded.
- **Allocation Concealment:** The observer and the subjects both are unaware about the allocation sequence until the subjects are assigned in respective groups.

Clinical Trials

When the researcher wants to find-out the effective dose, frequency and side effects of a particular new drugs he considers doing an experimental study on animal or human. In general terms, that is known as Clinical trials.

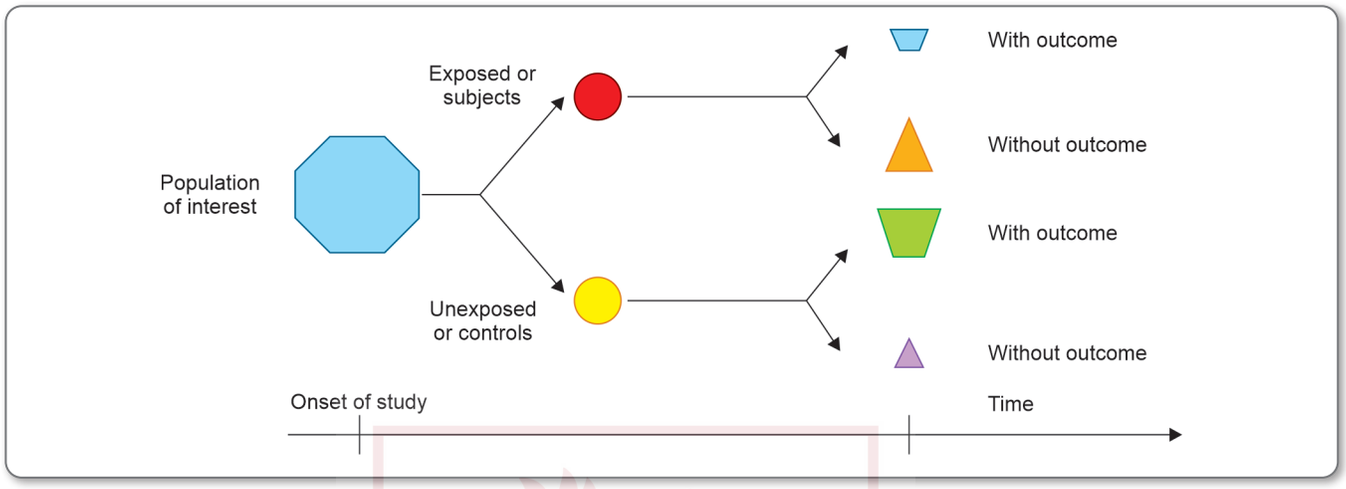

Figure 3: Cohort study

Cohort vs Case-Control vs Cross Sectional (Fig. 4)

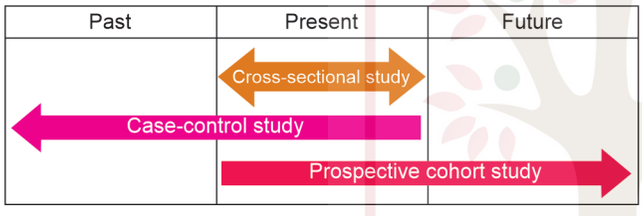

Figure 4: Cohort vs case-control vs cross sectional

CROSS SECTIONAL VS LONGITUDINAL RESEARCH DESIGNS

Cross Sectional Designs

- Observation of sample or data collection form sample at a specific point in time (only once)
- Prevalence studies are an example of cross-sectional studies
- E.g. Knowledge and attitude towards palliative care among undergraduate nursing students in a selected Nursing College.

Longitudinal Designs

- A research design that **involves repeated observations of the same variables over short or long periods of time** (i.e., uses longitudinal data).
- Usually, the study is conducted over an extended period of time.
- Example: Quality of Life of caregivers of Schizophrenic patients: a descriptive longitudinal study.
- Types of Longitudinal studies
  - **Panel study:** The researcher gather data from a fixed number of variables at regular but distant intervals, often spanning into a few years
  - **Retrospective study:** Uses data previously acquired over a previous period of time. It helps to estimate an exposure's effect on an outcome variable.
  - **Cohort Study:** Collecting data from a group of people who share specific traits or have experienced a particular occurrence simultaneously.

MIXED METHOD RESEARCH

Mixed method research is the research involving collection, analysis and integration of both qualitative and quantitative data within a study or series of studies often with an overarching goal of achieving both discovery and verification.

Mixed Method Designs

Legends used in mixed method research designs:

Notation used	Description
QUAN	Primarily driven by quantitatively data collection
QUAL	Primarily drive by qualitative data collection
quan	Quantitative data
qual	Qualitative data
+	Indicated that quantitative and qualitative data are collected simultaneously (concurrently)
→	Indicates sequential form of data collection
( )	Indicated that one form of data collection is embedded within another larger design
C	Quantitative data collection
Q	Qualitative data collection
C + Q	Concurrent data collection
Q → C	Sequential data collection, where qualitative data collected first
C → Q	Sequential data collection, where quantitative data collected first

Types of Mixed Method Research Designs

There are four major types of mixed method research designs:

- The convergent parallel design
- The explanatory sequential design
- The exploratory sequential design
- The embedded design

The Convergent Parallel Design

Convergent parallel design is a mixed method research design that involves the simultaneous collection and analysis of both quantitative and qualitative data (Fig. 5).

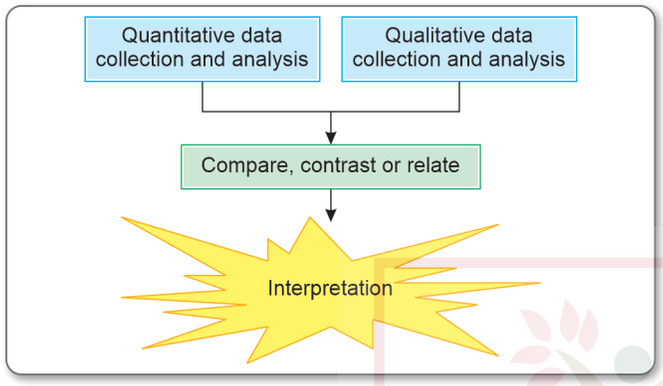

Figure 5: Schematic diagram of convergent parallel design

The Explanatory Sequential Design

A research design that involves the collection and analysis of two types of data sets in sequence, with the first phase involving the collection and analysis of quantitative data, followed by a second phase that involves the collection and analysis of qualitative data (Fig. 6).

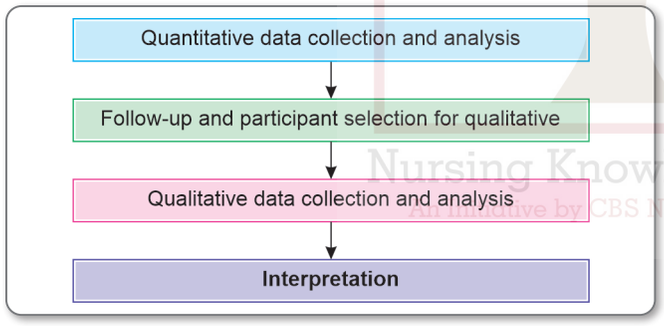

Figure 6: Schematic diagram of explanatory sequential design

The Exploratory Sequential Design

- In this design, the researcher collects and analyses qualitative data followed by quantitative data.
- It allows the initial qualitative phase to build the subsequent quantitative phase by informing the research questions, variables, instruments, and/or typology (Fig. 7).

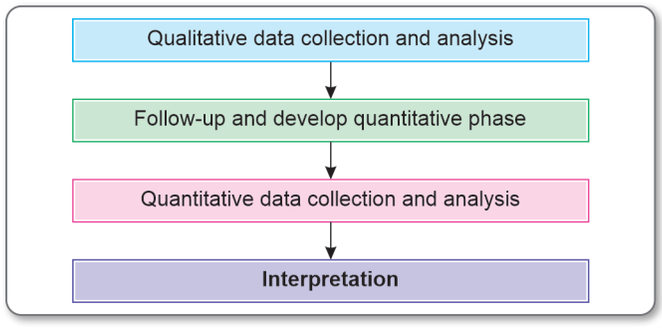

Figure 7: Schematic diagram of exploratory sequential design

The Embedded Design

- In this design, the researcher collects and analyse both quantitative and qualitative data within a traditional quantitative research design or qualitative research design.
- The embedded approach can take different forms, depending on how the two methods are combined (Fig. 8).

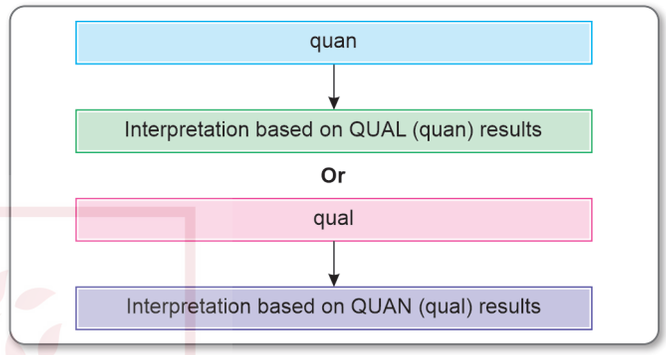

Figure 8: Schematic diagram of embedded mixed method design

Meta-Analysis

- In 1976, **Gene Glass** coined the term 'meta-analysis' to refer to 'the statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings.
- Meta-analysis is a consolidated and quantitative review of a large, and often complex, sometimes apparently conflicting, body of literature.
- Rigorously conducted meta-analyses are useful tools in evidence-based nursing/medicine
- Each study is a "case" in the meta-analysis, whereas each subject is a "case" in other research designs.
- Effect Size (ES) is the "dependent variable" in the meta-analysis.
- Funnel-Plot, Fail-safe N and Egger test are the approaches to avoid publication bias in meta-analysis.
- **I^2** is used to describe the percentage of total variation in study results that is caused by **heterogeneity** rather than chance.
- **Higher I^2 values are interpreted as greater heterogeneity**. An I^2 above 50% is usually taken as substantial heterogeneity.

Forest Plot (Fig. 9)

- The graphical display of results from individual studies on a common scale is a "Forest plot".
- Each row represents an individual study.

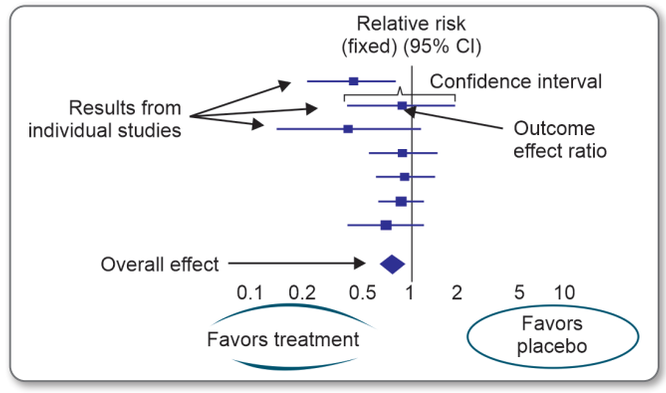

Figure 9: Forest plot diagram

Data Analysis

- **Intention to treat analysis:**
  - It is done for prospective randomized study in which the analysis done according to the assigned group not according to intervention.
- **Per protocol analysis:**
  - The population who followed the protocol are included in analysis and who deviates from the protocol are excluded. It causes **attrition bias.**

APPLICATION OF INFERENTIAL STATISTICS

Test of Significance (Table 9)

TABLE **9:** **Test of significance**

Attribute	Types of data	Distribution	Number of groups	Statistical test
Unpaired groups or ≥2 independent sample/group	Quantitative	Parametric	2 groups	Unpaired 't' test
			>2 groups	One way ANOVA
		Non-parametric	2 groups	Mann Whitney
			>2 groups	Kruskal Wallis
	Qualitative (Categorical) >2 groups		2 groups	Chi Square, Fisher exact
			>2 groups	Chi Square
Paired Groups (e.g., before and after)	Quantitative	Parametric	2 groups	Paired 't' test
			>2 groups	Repeated measures ANOVA
		Non-parametric	2 groups	Mann Wilcoxon
			>2 groups	Friedman's test
	Qualitative (Categorical) >2 groups		2 groups	McNemar test
			Cochran's Q test	
Looking for an association between two variables	Quantitative	Both variables are parametric	Pearson's Correlation Coefficient 0 = No correlation, +ve = Direct Correlation, -ve = Inverse correlation	
		Both variables are non-parametric	Spearman's rank correlation coefficient, **Kendall's** test	
	Qualitative (Categorical)	2 × 2 data	Risk Ratio	
		Otherwise	Chi square for trend, Logistic regression	

PARAMETRIC AND NON-PARAMETRIC TEST

Parametric test is the test which makes assumptions about parameters of population distribution from which data are drawn, while non-parametric test is that which makes no such assumptions. (Table 10)

TABLE **10:** **Parametric tests and non-parametric tests**

Parametric tests	Non-parametric test
Z test, 1-sample 't' test Paired (Dependent) sample t test 2(independent) sample t test 1-way ANOVA 2-way ANOVA Repeated measures ANOVA Analysis of Covariance (ANCOVA) Multiple analysis of Variance (MANOVA)	Wilcoxon Signed Rank Mann-Whitney Kruskal-Wallis Friedman Chi-square test of independence

Golden Points to Remember

1. **Attrition** means progressive loss of data in research. It occurs when cases are lost from a sample over time or over a series of sequential processes.
2. **Hawthorne effect:** The subject in a research study behaves in a particular manner because they are aware that they are being observed.
3. **External validity** denotes the results of a study which can **be generalized across the situations, stimuli and people.**
4. **Internal validity** refers to the extent in which the evidence supports the claim in regard to cause and effect, **within the context of that study.**
5. A pilot study is a research study conducted on a small scale before the intended study.
6. A careful appraisal of the strengths and weaknesses of the study is known as **Research critique.**
7. Conceptual definition provides the theoretical meaning of a variable and is often derived from a theorist's definition of a related concept.
8. **Experimental effect:** Researcher's characteristics, mannerisms or behavior may influence subject behavior.
9. **Reactive effect:** Reactive effect of pretest occurs when subjects have been sensitized to the treatment because of taking a pretest.
10. **Novelty effect:** When a treatment is new, subjects and researcher might behave in different ways.
11. The word statistics was first used by a German scholar **Gottfried Achenwal**.
12. **Nominal** measurement consists of categories that are not more or less than each other but are different from one another. **Example: Gender:** Male, Female. **Religion:** Hindu, Muslim, Christian.
13. **Ordinal** level of measurement ranks items based on their relative standing on a specific attribute. The degree of difference between items cannot be measured. **Examples: Income:** Low, middle, upper. **Disease status:** Mild, Moderate, Severe.
14. **Interval scale:** The degree of difference between items can be measured but the ratio between them cannot be measured. Zero is arbitrary. **Examples:** Temperature**,** pH.
15. Mean, median and mode are **measures of central tendency.**
16. **Median** is the point on a numerical scale above which and below which 50% of cases falls.
17. 50th percentile is equivalent to median.
18. Median is the middle value of a data set. Commonly used for description of data with non-normal distribution.
19. IQR refers to Inter-Quartile Range. It is the deference between 25th percentile and 75th percentile of a data set.
20. Mode is the value which has highest frequency.
21. Mean is the average of all the values. Most commonly used parameter in a normally distributed data.
22. Range, standard deviation and variance are **measures of dispersion.**
23. The **range** of a set of data is the difference between the highest and lowest values in the set.
24. The **standard deviation** is a statistic that measures the dispersion of a dataset relative to its mean.
25. Standard deviation is square root of variance; or variance is square of standard deviation.
26. The formula to calculate degree of freedom (df) in Chi-square test is **(c – 1) (r – 1).**
27. The formula to calculate degree of freedom (df) in 't' test is n-1.
28. Probability values fall on scale between **0 and 1.**
29. **Type I error (α) occurs** when a true null hypothesis is rejected.
30. A Type-I error refers to **False positive (similar to wrong diagnosis).**
31. Type-II error (β) occurs when one fails to reject a null hypothesis that is actually false.
32. A type-II error refers to **False negative (similar to missed diagnosis).**
33. p value refers to probability of type-1 error (α).
34. The sensitivity of a statistical test is measured by its power. Power refers to 1 – β.

"He who has health has hope; and he who has hope has everything."
—Arabian proverb

MULTIPLE CHOICE QUESTIONS
(Including Explained and Practice Questions)

INTRODUCTION AND DEFINITIONS

1. The word research is derived from the ……., which means "to go about seeking".
a. Recherur b. Recherche
c. Researche d. Resherur

Explanation: The word research is derived from the Middle French "recherche", which means "to go about seeking", the term itself being derived from the Old French term "recerchier" a compound word from "re-" + "cerchier", or "sercher", meaning 'search'. The earliest recorded use of the term was in 1577.

2. In which year, the Government of India set up the Indian Research Fund Association (IRFA)?
a. 1911 b. 1925
c. 1947 d. 1952

3. In which year, the Government of India redesignated IRFA as Indian Council of Medical Research (ICMR)?
a. 1947 b. 1949
c. 1952 d. 1955

Explanation: In 1911, the Government of India set up the Indian Research Fund Association (IRFA) with the specific objective of sponsoring and coordinating medical research in the country. After independence, it was redesignated the Indian Council of Medical Research (ICMR) in 1949, with considerably expanded scope of functions. The Indian Council of Medical Research (ICMR), headquartered at New Delhi, is the apex body in India for the formulation, coordination and promotion of biomedical research.

4. In which year, the National Center for Nursing Research (NCNR) was redesignated as the National Institute of Nursing Research (NINR)?
a. 1985 b. 1990
c. 1993 d. 2004

Explanation:

- June 10, 1993 —The NIH Revitalization Act of 1993, becomes law. Among other provisions, it elevates NCNR to an NIH Institute. As such, NCNR is redesignated the National Institute of Nursing Research (NINR).
- June 14, 1993 — The HHS Secretary signs the Federal Register notice establishing the National Institute of Nursing Research (NINR).

***Source**: www.nih.gov*

5. The "American Journal of Nursing", the oldest nursing journal that is still in operation was published in:
a. 1886 b. 1900
c. 1908 d. 1912

Explanation: The first nursing journal, *The Nightingale* was published on March 6, 1886, becoming the first nursing journal. In 1900, the **American Journal of Nursing** began publication, becoming the first nursing journal to be owned and operated by nurses. It remains the oldest nursing journal still in circulation.

6. The first nursing journal dedicated to nursing research, '*Nursing Research*' was published in:
a. 1925 b. 1952
c. 1965 d. 1970

7. The terminology used to explain the number of subjects recruited to participate in a study decline during a course of the project:
a. Variability b. Heterogenetic
c. Homogeneity d. Attrition

Explanation: Attrition means "wearing away" or progressive loss of data in research. It occurs when cases are lost from a sample over time or over a series of sequential processes. Sample attrition is commonly expected in a longitudinal studies or experimental studies.

8. The subject in a research study behaves in a particular manner because they are aware that they are being observed. This is called:
a. Hawthorne effect b. Experimental effect
c. Reactive effect d. Novelty effect

Explanation: Hawthorne effect refers to the tendency of subjects to perform better when they are aware that they are being observed.

- Experimental effect: Researcher's characteristics influence subject behavior.
- Reactive effect: Reactive effect of pretest sensitivity on the posttest.
- Novelty effect: Subjects and researcher might behave in different ways when exposed to new treatment.

9. A nurse who reads research articles and incorporates research findings into clinical practice is a:
a. Consumer b. Primary investigator
c. Co-investigator d. Collaborator

10. Contributions of Florence Nightingale to nursing research is:
a. Case study approach
b. Conceptual Framework for research
c. Data collection and analysis
d. Qualitative research method

11. The sentence "The purpose of this study was to examine the relationship between knowledge and preoperative anxiety among patients undergoing abdominal surgery" would most likely be found in which chapter of a research dissertation?
a. Introduction
b. Review of Literature
c. Methodology
d. Data Analysis and Interpretation

Ans.

1. b
2. a
3. b
4. c
5. b
6. b
7. d
8. a
9. a
10. c
11. a

70. Which of the following is not considered as component of the research problem?
a. Research instruments b. Variables of the study
c. Study population d. Research setting

RESEARCH OBJECTIVES

71. Characteristics of research objective are all; except:
a. Measurable b. Testability
c. Time bound d. Equivocal

72. Which of the following statement is true?
a. An aim can have only one objective
b. Objectives have no link with methodology
c. Objectives have no link with study title
d. Objectives are subsidiary to aims

73. A good research proposal will always:
a. Focus on addressing the research objectives
b. Focus on specific style of writing references
c. Consider all possible research that had previously been done on the topic
d. Provide researchers names and address

74. Find the odd one out regarding the typical characteristics of a research objective:
a. Observable b. Measurable
c. Achievable d. Verifiable

75. What the acronym SMART specifies, that the objectives should be?
a. Specific, measurable, achievable, realistic, and timely
b. Simple, modifiable, applicable, realistic, technical
c. Small, measurable, applicable, reliable, timely
d. Sensitive, matching, affordable, robust, testable

76. All the following statements are correct regarding objectives; except:
a. An objective is a statement in specific and measurable terms
b. Objectives have a broader perspective than aims
c. Objectives lay out how the researcher plans to accomplish the aims
d. A research study may include a number of objectives

77. The statement "to compare the knowledge of primigravida and multigravida women regarding breastfeeding practices" is described as research:
a. Assumption b. Hypothesis
c. Objective d. Problem

78. The depth of the research study can be judged from its
a. Title
b. Objectives
c. Duration of data collection period
d. Proposed research grant

Explanation: Research objectives describe concisely what the research is trying to achieve.

REVIEW OF LITERATURE

79. Writing Annotated bibliography is related to _____. *(AIIMS Mangalagiri, Faculty Entrance 2022)*
a. Reference writing b. Literature review
c. Research methodology d. Data analysis

80. A literature review is: *(RAK MSc 2018)*
a. Everything that is known about subject
b. An analytical summary of research findings
c. All approved data on a research topic
d. A compilation of all positive results of research

Explanation: A literature review is everything that is known about subject.

The purpose of a good literature review is to get thorough familiarity with available evidence about the subject of study.

Review of literature is not an analytical summary of research findings or the positive results

81. In quantitative research process, the literature review should occur: *(RAK MSc 2018)*
a. Near the end of research process
b. Shortly before the analysis of the problem
c. Early in the research process
d. None of the above

Explanation: Investigators usually undertake a thorough literature review as an early step in a research study. Once the researcher has identified a potential research problem, the next step is to review the related literature. The main purpose of literature review is to keep the reader up-to-date with the research done on the selected topic.

82. The example of a primary source in a research study is
a. A textbook of pediatric nursing
b. A dissertation which critiques all research in the area of attention deficit disorder
c. A journal article which used some unpublished database
d. A published result on the findings of another study

83. A researcher wants to find out the effectiveness of meditation on patient with anxiety disorder. Among the variables which one would be most relevant to explore in the literature on this subject?
a. Outcome of meditation when used by geriatric populations
b. Pain management for people with anxiety disorder
c. Use of meditation during pregnancy
d. Meditation techniques found to be effective

84. The purpose of a literature of review is to:
a. Define the problem
b. Identify strengths and weaknesses of previous studies
c. Help in operational definition
d. All of the above

85. Which of the following is considered to be the highest quality type of literature?
a. Research articles in a peer-reviewed journal
b. Secondary sources
c. Books
d. Research reports in a conference proceeding

86. The most useful abstracting index for nursing literature is:
a. ERIc b. CINAHL
c. Pubmed d. Psych INFO

87. Index that provide the largest number of relevant nursing sources is:
a. International Nursing Index
b. Cumulative Index to Nursing and Allied Health Literature
c. Nursing Studies Index
d. Cochrane Database

Ans.

70. a
71. d
72. d
73. a
74. d
75. a
76. b
77. c
78. b
79. b
80. a
81. c
82. c
83. d
84. d
85. a
86. b
87. b

2

Health is the greatest of all possessions; a pale cobbler is better than a sick king."
—Isaac Bickerstaff

Nursing Education

SYNOPSIS

EDUCATION

It brings change in behavior of an individual in a desirable manner. It aims at all-round development of an individual.

Philosophies of Education

The term 'Philosophy' has been derived from two words, i.e., "philos" means 'love' and "sophia" means 'wisdom'. Philosophy means love for wisdom.

Traditional Philosophies (Table 1)

TABLE **1:** **Traditional Philosophies: Some facts**

Character	Naturalism	Idealism	Pragmatism (Experimentalism)	Realism
Exponents	• **Aristotle** • JJ Rousseau	• **Plato** is father of Idealism. • Socrates, Kant, Hegel, Guru Nanak, Tagore, Mahatma Gandhi, Dayananda and others.	• **William James** is the father of Pragmatism • **John Dewey**, S. Kil Patrick • Margaret H and Mead	• J Friedrich Herbert • Herbert Spencer • Franklin Bobbitt
Fundamental principles	• Separate nature from God • Human life is part of nature • Emphasize 'matter and the physical world' • Ignore spirituality and supernaturalism.	• Ideas or thoughts make up fundamental reality • Ultimate reality is spiritual rather than physical, mental or material. • The only real things are mental entities, not physical things.	• It is the product of practical experiences of life. • Based on practical utility. • Emphasize is on action rather than on thought. • Experimental method of science.	• Correspondence and sensation (as we see it). • What is true and real in daily life is admissible. • Opposes to idealism. • Against spiritualism.
Aims of education	Self-realization, Self-expression, Self-preservation, Struggle for existence.	Idealism emphasizes the glory and grandeur of human life.	Creation of new values, activity and experience, personal and social adjustment, reconstruction of experience, all-round personality development.	Man leads a happy and comfortable life through education. To develop memory of the child.

Contd...

Character	Naturalism	Idealism	Pragmatism (Experimentalism)	Realism
Curriculum	No fixed curriculum. Every child has the right to determine his/her curriculum. Learn directly from nature through experience.	Based upon ideas and ideals. Language, literature, social studies, science and mathematics are included.	Curriculum is fixed in advance at the beginning itself. Utilitarian curriculum includes subjects that impart knowledge and various types of skills. Practical subjects like social studies, physics, maths and hygiene are included at later stage.	Subjects of physical world: mathematics, science and social science.
Methods of teaching	Observation and experimental methods (Learning by doing)	Self-activity, play-way method, project method. **Kindergarten** method. Discussion, lecture, questioning and imitation.	Project method Practical/experiments Handling of objects, tools and making things	Demonstrate, Recite
Role of teacher	Observer, supplier of materials and opportunities (role is behind the scene)	Teacher has to be specialist in knowledge. Teacher's personality is a source of inspiration for students.	Teacher will not impose anything on child. Teacher will facilitate students to be experimenter and discoverer.	Displays, imparts knowledge.

Modern Contemporary Philosophies

- **Existentialism:**
  - This philosophy emphasizes the existence of the humans as a free and responsible agent determining their own development through acts of the will.
  - It is the **youngest of all philosophy**, primarily built upon the work of contemporary scholars of the 20th century.
  - Chief exponents are **Søren Kierkegaard**, **Karl Jaspers** and **Jean–Paul Sartre**
- **Progressivism:**
  - It is the advocacy of improvement of society by reform.
  - Progressivism revolves around the students' needs, including teaching students to be good citizens as well as good learners.
  - Exponents are **John Dewey, William James, G Thomas Lawrence**.
- **Behaviorism:**
  - It believes that the learning is a result of environmental conditioning.
  - Exponents are **Ivan Pavlov (classical conditioning), Skinner (Operant conditioning), John Watson, and Edward Lee Thorndike (connectionism).**
- **Humanism:**
  - It emphasizes the value of human beings and generally prefers critical thinking and evidence (rationalism and empiricism) over superstition.
  - The humanist emphasizes on literature.
  - Key proponents of humanism include **Carl Rogers** and **Abraham Maslow**.
- **Experimentalism:**
  - Experimentalism believes that things are constantly changing.
  - Chief proponent is John Dewey.
- **Eclecticism:**
  - It is the process of pulling out and putting together of the good ideas and concepts of various philosophies of education.
- **Reconstructionism:**
  - It emphasizes the addressing of social questions and a quest to create a better society and worldwide democracy.
  - **Theodore Brameld** was the founder of reconstructionism.
- **Essentialism:**
  - Essentialism refers to the "traditional" or "Back to the Basics" approach to education.

Key Points

- **Plato** is the Father of Idealism. Other proponents of Idealism include Socrates, Kant, Hegel, Guru Nanak, Tagore, Mahatma Gandhi, Dayananda and others.
- **Aristotle and JJ Rousseau** are the proponents of Naturalism.
- **Naturalism** emphasizes 'matter and the physical world'. It ignores spirituality and supernaturalism.
- **William James** is the Father of Pragmatism. Other proponents of pragmatism include **John Dewey** and S. Kil Patrick.
- Pragmatism emphasizes action rather than thought.
- J Friedrich Herbert, Herbert Spencer and Franklin Bobbitt are proponents of Realism.
- Idealism believes that ultimate goal of human activities is the realization of human mind in his or herself.

"He who has health has hope; and he who has hope has everything."
—Arabian proverb

MULTIPLE CHOICE QUESTIONS
(Including Explained and Practice Questions)

NURSING EDUCATION IN INDIA

1. What is the duration of the course Nurse Practitioner in Critical Care Nursing according to Indian Nursing Council?
(AIIMS Mangalagiri, Faculty Entrance 2022)
a. 1 year b. 2 years
c. 3 years d. 4 years

2. National Consortium for PhD in nursing has been constituted by Indian Nursing Council in collaboration with:
(AIIMS Mangalagiri, Faculty Entrance 2022)
a. Maharashtra University of Health Sciences
b. Mahatma Gandhi University of Health Sciences
c. Rajiv Gandhi University of Health Sciences
d. Rajasthan University of Health Sciences

3. In India, the first four-year basic bachelor's degree nursing program was established in:
(AIIMS Mangalagiri, Faculty Entrance 2022)
a. 1920 b. 1940
c. 1946 d. 1955

4. In India, first MSc Nursing program was started in RAK College in the year:
a. 1959 b. 1948
c. 1946 d. 1970

5. MPhil in Nursing program was started at RAK College of Nursing in the year:
a. 1972 b. 1980
c. 1985 d. 1992

6. PhD program in Nursing was first started in India in:
a. 1980 b. 1985
c. 1992 d. 1996

7. National Consortium for PhD in Nursing in India was initiated by:
a. AIIMS, New Delhi
b. RAK College of Nursing, New Delhi
c. Indian Nursing Council
d. IGNOU

8. The first batch of PhD students under National Consortium for Ph.D in Nursing was admitted in the year:
a. 1992-1993 b. 2002-2003
c. 2005-2006 d. 2008-2009

REGULATORY AND PROFESSIONAL BODIES

9. The function of Indian Nursing Council is to:
a. Arrange for university inspections of colleges in respective states
b. Financial assistance to conferences and seminars conducted by nursing colleges
c. Make policies for Nursing Education and Practice
d. Recruit nursing personnel in hospitals

10. Trained Nurses Association of India (TNAI) was formed in the year:
a. 1928 b. 1947
c. 1908 d. 1890

11. The International Council of Nurses (ICN) was established in the year: *(Tutor Exam 2015, AIIMS, Rishikesh)*
a. 1869 b. 1899
c. 1928 d. 1905

12. The International Council of Nurses (ICN) is headquartered in:
a. Geneva, Switzerland b. Washington, US
c. New York, US d. London, UK

13. The first state registration council at Madras Nursing Council was constituted in
a. 1908 b. 1926
c. 1947 d. 1949

Explanation: The first state registration council at Madras Nursing Council was constituted in 1926 and Bombay Nursing Council was constituted in 1935.

14. The first school of nursing for midwives with four students was started at
a. Government General Hospital, Madras
b. Christian Medical College, Vellore
c. RAK School of Nursing, Delhi
d. St. Johns Medical College, Bangalore

Explanation: In 1871, the government General Hospital at Madras was started with the first school of nursing for midwives with four students.

15. The first school of Health visitors was started by:
a. Lady Reading Health School, Delhi
b. Christian Medical College, Vellore
c. Government General Hospital, Madras
d. Bombay General Hospital, Bombay

16. The Indian Nursing Council was established in the year:
a. 1945 b. 1947
c. 1949 d. 1952

Explanation: The Indian Nursing Council (INC) is constituted in the year 1949 under the Indian Nursing Council Act 1947. INC is a statutory Autonomous body under Union Ministry of Health and Family Welfare.

17. A web-based application designed for Indian Nursing Council to enable creation of live register of the nurses across the country is known as:
a. NRTS b. AINRS
c. GFATM d. WBNRS

Ans.

1. b
2. c
3. c
4. a
5. b
6. c
7. c
8. c
9. c
10. c
11. b
12. a
13. b
14. a
15. a
16. c
17. a