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A Complete Centre for MD/MS(AIAPGET.), MO (UPSC & PSC), Other Ayurvedic Entrance Examination and Foundation Courses for Proff. I, II & III

Research Methodolgy

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RESEARCH AND STATISTICS

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Definition Of Research : Research refers to search of knowledge.

Research can be defined as the systematic collection, description, analysis and interpretation of data to answer a certain question or solve a problem.

Component Of Good Research Question

V- Variability, P-Population, S-Study design

PICOT

P	Population,	**I**	Intervention	**T**	Time
C	Comparison,	**O**	Outcome,		

Research Process

1. Selection of topic	2. Review of literature
3. Formulation of hypothesis	4. Aims and Objective
5. Material and methods	6. Observation and result
7. Discussion	

Criteria For Selection of Topic

FINER

F	Feasibility	**E**	Ethical
I	Interest	**R**	Relevance
N	Novel		

Search Engines

- PubMed: developed and maintained by NCBI (National Centre for biotechnology information) at NLM (National library of medicine), NIH (National institute of health).
- Search by MeSH terms (medical subjective headings)
- Boolean operators –OR, AND, NOT
- Medline Cochrane library, AYUSH research portal, DHARA (Digital helpline for Ayurveda research articles), TKDL (Traditional knowledge of digital library) DHARA: implemented by AVT and funded by CCRAS.

Thesis Or Desertion Format –IMRaD

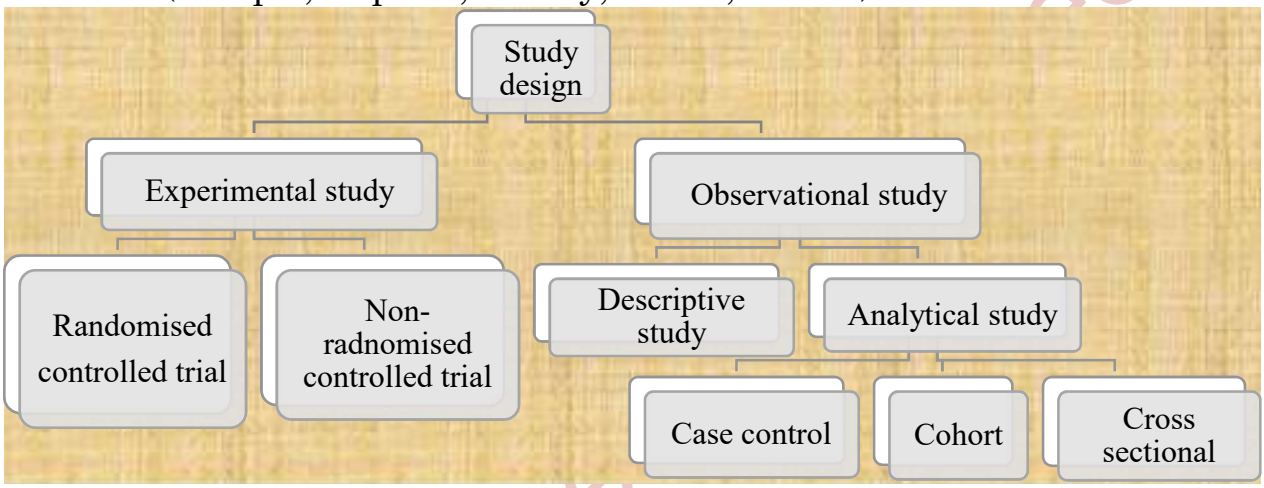
Introduction, Material and methods, Result and Discussion.

Referencing: It is the standard way of acknowledging the source of information or idea.

Vancouver, MLA (Modern language association), APA (American psychological association), Harvard, Chicago.

Data Mining Process (Sorting Information)

SEMMA (Sample, Explore, Modify, Model, Assess)



Exploratory Study:

When the state of knowledge regarding any phenomenon is very less.

Descriptive Study:

Does not have any compare group.

Does not answer regarding the questions when/how and why.

Data is accurate, factual and systematic but does not answer what cause the situation.

Case Report

Detailed presentation of a single case i.e. new or unfamiliar diseases, rare manifestation. It generates hypothesis regarding pathophysiological mechanism.

Case Series

Study of larger group of patients (e.g. > 10) with a particular disease.

Analytical Study: They have comparison group. Investigator does not assign any exposure.

Cohort Study

Cohort: group of people sharing common characteristics.
Direction: Exposure to outcome, cause to effect.
Example: smoking leads to lung cancer etc.

Types Of Cohort Study:

- prospective and retrospective, open and closed
- It is good for studying rare exposure (not for rare disease)
- Examines multiple outcomes for exposure.

Case Control Study

- (two groups one case (develops disease) and other control group are compared)
- Direction of research (Effect to cause, outcome to exposure)
- Good for examine rare outcomes.
- Performed on small group of population.

Cross Sectional Study

Disease and exposure are measured simultaneously at given point of time.

- It collects information about disease burden.
- Also known as "prevalence studies".
- It generates hypothesis.
- Not suitable for disease etiology or to study the rare disease. E.g. : Cancer prevalence

Before and after Study: is a method of control in which results from experimental subjects are compared with outcomes from patients treated before the new intervention was available. These are called historic controls.