

Module: 01

Title of the Module : Research Methodology and Dissertation

Credits : 20

Learning / Teaching Methods and Time Allocation (Hours):

Interactive Lectures (50), SGD (50), IT Skills Learning (50), IL (100), Research (1500)

Learning Outcomes:

At the end of the module the expected competencies to be achieved by the trainee are;

Knowledge Domain

- Contribute to the creation, dissemination, application and translation of new health care knowledge and practices.
- Develop knowledge and skills to plan and conduct a research project using scientific methods
- Develop the knowledge of Ayurveda research.
- Identify the ancient methods of Ayurveda research

Skill Domain

- Analyse data using basic statistical methods, derive appropriate conclusions and recommendations
- Demonstrate the ability to critically appraise research publications and practice evidence based medicine.

Attitude and Mind set Domain

- Identify strengths, deficiencies, and limits in one's knowledge and expertise and perform learning activities that address one's gaps in knowledge, skills, and/or attitudes.
- Analysis of data with a statistical package
- Present the findings in a scientific report

Core Knowledge

- Introduction and definition of Research.
- Introduction of Research methodology in Ayurveda perspective and definition of the term '*Anusandhana*'
- Need of the research in the field of Ayurveda
- Classical method of research
- Identifying a research topic, Development of a conceptual framework for research problem, select, analyze and write a statement of the research problem.
- Formulating objectives/Hypothesis, Literature review, Sources of Literature, Critical reviewing & documenting results of literature.
- Sampling methods and Sample size calculations.
- Data collection tools, type of study instruments, Describing Data/ Central Tendency, Dispersion, Probability, Parametric and Non Parametric Tests.
- Significance Tests – sample Proportion/ Mean VS Population Proportions/ Means, Difference between two Means/ Proportions, Chi squared Test.
- Measurements in Epidemiology
- Cross sectional studies, Case control studies, Cohort studies
- Estimating population parameters
- Randomized Control Trials
- Qualitative studies
- Comparison between methods of research in Ayurveda and contemporary methods in health science
- experimental research/ Animal studies

Skills

- Identification of a research topic / area.
- Literature review using different methods.
- Demonstrate appropriate use of IT in research.
- Procedure to obtain Ethical approval.
- Writing a Research Proposal.
- Sample size calculation.
- Access to databases and digital library.
- Collection of data, tabulation and analysis of data.
- Writing a Research report.
- Writing an article to a journal.
- Presentation at a scientific meeting.
- Ability to present, discuss and defend a research project, findings and conclusions.