

Causal Inference & Intervention Design FMT Diet — Hands-on

Learn how to move beyond correlation and design microbiome studies that target causal questions. You will work with causal diagrams, understand confounding and bias, apply propensity based frameworks, and translate findings into interpretable effect estimates for FMT, diet, probiotic and other microbiome focused interventions.

Causal Inference and Intervention Design FMT Diet

[Help Desk · WhatsApp](#)

Session Index

[Session 1 — Causal Inference Concepts in Microbiome Studies](#) [Session 2 — Confounding Control & Effect Estimation Frameworks](#) [Session 3 — FMT, Diet and Probiotic Intervention Design](#) [Session 4 — Mini Capstone: Microbiome Intervention Analysis](#)

Session 1

Fee: Rs 8800 [Apply Now](#)

Causal Inference Concepts in Microbiome Studies

From association to causation in microbiome research

[correlation vs causal effect](#) [counterfactual thinking](#)
[estimands and effect measures](#)

Causal diagrams and bias structures in microbiome studies

[directed acyclic graphs ideas](#) [confounders,](#)
[mediators and colliders](#) [backdoor paths and](#)

adjustment sets

Study design options for causal microbiome questions

randomized trials and cross over ideas **observational cohorts and registries** **natural experiments and opportunistic designs**

Session 2

Fee: Rs 11800 Apply Now

Confounding Control & Effect Estimation Frameworks

Confounding and selection bias in microbiome interventions

baseline imbalance and risk factors **loss to follow up thinking** **measurement and misclassification issues**

Adjustment strategies and propensity style frameworks

regression adjustment and stratification ideas **propensity scores, matching and weighting concepts** **balance diagnostics mindset**

Effect estimation and sensitivity thinking

average treatment effect style summaries **subgroup and heterogeneous effects** **sensitivity to unmeasured confounding**

Session 3

Fee: Rs 14800 Apply Now

FMT, Diet and Probiotic Intervention Design

Designing FMT and microbiome directed trials conceptually

donor and recipient selection logic **randomization, blinding and controls** **safety, ethics and follow up windows**

Dietary and probiotic intervention frameworks

exposure definition and adherence tracking **time**
varying exposures and co interventions **choice of**
primary and secondary outcomes

Linking causal estimands to microbiome readouts

alpha and beta diversity as responses **taxa, pathways**
and summary scores **responder and non responder**
patterns

Session 4

Fee: Rs 18800 Apply Now

Mini Capstone: Microbiome Intervention Analysis

End to end analysis of an example microbiome intervention

Theory plus guided practical

Summarizing causal effects and uncertainties for decision makers

effect size tables and plots **subgroup and sensitivity**
summaries **transparent reporting of assumptions**

Deliverables: analysis notebook, effect summaries & methods block

tidy analysis tables **figures for reports and slides**
reusable causal analysis methods text