

## **Synopsis for Dissertation**



**The IIHMR University, Jaipur**

**for the partial fulfilment for the award of the degree of**

**Master of Business Administration**

**(MBA) in**

**Hospital and Health Management**

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**2025**

**Title** – Comparative Outcomes of fertility treatments: Medical therapy, Intrauterine insemination (IUI) and In-vitro fertilization (IVF)

**Introduction** - Infertility is a growing public health concern globally, affecting both men and women. Fertility treatments such as medical management, intrauterine insemination (IUI), and assisted reproductive technologies (ART) like in vitro fertilization (IVF) have provided hope to many couples. However, their success varies based on several clinical and demographic factors.

## **Literature Review**

The literature highlights infertility as a rising global health concern, impacting around 15% of reproductive-age couples. Multiple treatment options are available, including medical management, intrauterine insemination (IUI), and in vitro fertilization (IVF), with selection often based on patient-specific factors. Studies consistently show that age, Anti-Müllerian Hormone (AMH) levels, and the number of treatment cycles significantly affect success rates. Additionally, repeated treatment failures can lead to emotional and financial strain, underlining the importance of personalized treatment approaches. However, a gap remains in comparative studies evaluating outcomes across different treatments and demographic variables, indicating the need for further research.

## **Research Goal:**

To evaluate and compare the success rates of different fertility treatment modalities—medical management, intrauterine insemination (IUI), and in vitro fertilization (IVF)—and to identify key demographic factors such as age and AMH levels that influence positive treatment outcomes, with the aim of promoting personalized and effective fertility care.

## **OBJECTIVES:**

- To analyse and compare the success rates of medical management, IUI, and ART/ICSI over a 3-month period.
- To identify the factors influencing the success rate of each modality.

## **Methodology**

### **1. Study Design**

This was a retrospective observational study conducted over a period of three months in the Fertility Department of a tertiary care hospital. The aim was to assess and compare the success rates of three fertility treatment modalities:

- Medical Management (Ovulation Induction)
- Intrauterine Insemination (IUI)
- In-Vitro Fertilization with Intracytoplasmic Sperm Injection (IVF/ICSI)

## 2. Study Setting and Duration

- Location: Cloudnine Group of Hospitals, Fertility Department
- Duration: 3 months
- Type: Hospital-based data collection and analysis

## 3. Study Population

All 260 female patients who underwent fertility treatment during the study period and fulfilled the inclusion criteria were included.

## PLAN OF ANALYSIS

### **Descriptive Statistics:**

Summarize demographic characteristics (age, AMH level, duration of infertility, etc.) and treatment distribution (number of patients in each modality: Medical Management, IUI, IVF).

### **Success Rate Calculation:**

Calculate the percentage of successful outcomes (clinical pregnancies) in each treatment group.