

Chapter-3

FEASIBILITY OF AN IVF CENTRE IN A LEADING OBSTETRICS AND GYNECOLOGY HOSPITAL

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INTRODUCTION

Reproductive health encompasses the holistic state of well-being, encompassing the physical, mental, and social aspects related to the reproductive system. Globally, over 80 million couples, predominantly in developing countries, face infertility challenges, leading to adverse consequences such as social isolation and economic hardship [1-2]. In vitro fertilization (IVF) has become a prevalent option, involving complex procedures to treat infertility. IVF success rates vary with factors like age and the cause of infertility. In developing countries, infertility is a significant public health concern, often accompanied by cultural stigmatization. While IVF is an effective solution, preventive measures and education remain crucial in addressing infertility problems. The global market for IVF is substantial, with growth observed in countries like Brazil, Latin America, Russia, Turkey, and the UAE. Despite the expenses and risks associated with IVF, it has provided hope and success, resulting in over 200,000 babies since its introduction in 1981. The procedure is recommended for specific conditions, and its success depends on various factors, including the reason for infertility and the age of the individuals undergoing the treatment. While IVF is not the initial infertility treatment, it offers a viable option for couples facing challenges in conceiving through conventional therapies. The cost of IVF varies based on factors such as location, medication requirements, the number of cycles, and insurance coverage. Overall, IVF represents a crucial aspect of reproductive health, providing hope and solutions for couples struggling with infertility [3].

Setting up a high-standard IVF laboratory involves meticulous planning and adherence to guidelines from authoritative bodies like the Human Fertilization and Embryology Authority and the American Society for Reproductive Medicine. Key considerations include choosing a location with a safe, non-toxic, and pathogen-free environment, logically planning the laboratory's design, and ensuring optimal air quality through HVAC systems and filters. The structural design involves non-toxic paint, solid ceilings, slip-proof flooring, and ergonomic furniture. Each workstation should be self-contained to minimize staff movement during procedures. The laboratory's

commissioning should undergo thorough testing, and staff training is crucial, emphasizing adherence to standard operating procedures (SOP). Licensing embryologists and maintaining adequate staffing levels are essential to ensure protocol adherence, staff satisfaction, and smooth laboratory operations. Non-compliance with SOPs should be addressed rigorously [4,5].

RESEARCH OBJECTIVES

1. To outline the legal and infrastructural responsibilities.
2. To specify the technical needs, including equipment and manpower resources, essential for the successful implementation of this project.
3. To detail the distinctive features of the model in comparison to competitors.
4. To evaluate the positive economic advantages that the establishment of the new department will offer to the organization.

RESEARCH METHODOLOGY

The study employed a descriptive approach and was conducted at Zulekha Hospital, Sharjah. The focus was on cases referred for Assisted Reproductive Technology (ART) procedures. The study site was exclusively Zulekha Hospital in Sharjah. The sample size comprised the total number of referred cases for ART during the study period. Data collection was collected through primary and secondary sources. Primary data were gathered using a checklist developed in accordance with the Ministry of Health (MOH) parameters. Additionally, secondary data were obtained from medical records retrieved from the hospital's medical records department. Interactions with patients guided the preparation of a questionnaire as the primary data collection tool.

RESULTS AND DISCUSSION

Securing the license to operate the IVF center is a crucial step in the process. Higher success rates in IVF are observed among women below the age of 35. Over the past four months, the Gynecology

department has seen a substantial influx of patients, totaling approximately 16,423. Within this group, 5% were diagnosed with female infertility, while 1% presented with male infertility cases. The monthly revenue generated per patient was computed based on market research approximations. Through competitor and SWOT analysis, it was determined that the competitive edge lies in establishing the IVF center within a hospital renowned for its exceptional gynecological facilities.

CONCLUSION

In certain major cities, the private sector provides Assisted Reproductive Technology (ART) services for addressing infertility. The substantial expenses associated with these services stem from the need for costly infrastructure, medications essential for inducing multiple ovulations, and ongoing operational costs. The findings suggest that the IVF centre within the hospital is economically feasible and poised for success.

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