



**Impact of Pre- and Post-Management on IVF Outcomes:  
A Survey Based Study on Enhancing the Management of Therapy with  
Couples Undergone IVF Treatment.**

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Received: 02 January 2025

Published: 08 January 2025

DOI: <https://doi.org/10.5281/zenodo.14625608>

**Abstract**

**Introduction:** *In vitro* fertilization (IVF) is a crucial assisted reproductive technology (ART) that assists couples facing infertility. Efficient pre- and post-IVF treatment and management is essential for maximizing success rates and safeguarding maternal and neonatal health. This study examines the management strategies of healthcare practitioners (HCPs) before and after IVF and their influence on patient outcomes, emphasizing a comprehensive approach that incorporates clinical, emotional, and lifestyle factors while also understanding the perceptions and challenges faced by couples undergoing treatment.

**Objectives:** The primary aim is to evaluate pre- and post-IVF management strategies and their influence on success rates and patient experiences. Secondary objectives include comparing treatment methods, exploring lifestyle impacts, addressing male fertility, and understanding emotional well-being.

**Methods:** A survey-based study was performed including gynecologists and fertility specialists with more than five years of expertise in IVF, as well as individuals or couples who have completed at least one IVF cycle. Data was gathered via a web-based interface engineered to guarantee confidentiality and participant consent. The questionnaire included areas such as therapeutic practices, emotional support, and lifestyle modifications. Quantitative analysis was conducted utilizing SPSS software (version 25.0), incorporating univariate and bivariate analyses, alongside chi-square tests for hypothesis evaluation.

**Results and Conclusion:** The study successfully identified several key factors, which according to healthcare providers and couples, significantly influence the outcomes of IVF treatments. These factors include pre-IVF lifestyle adjustments, hormonal balance, genetic screening, and post-IVF emotional and physical recovery protocols. The respondents also shared valuable insights into the challenges and opportunities for enhancing IVF management practices. These insights can become instrumental in formulating novel strategies for improving IVF success rates and optimizing patient experiences.

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## Introduction

Commonly used fertility treatment in vitro fertilization (IVF) combines eggs and sperm in a lab environment to produce embryos then transported to the woman's uterus. Although the procedure can be physically and emotionally taxing, it can be helpful in assisting couples trying to conceive. Therefore, while starting this road of fertility, pre- and post-IVF care should be given more thought.

## Post- IVF Management

Before beginning IVF, couples should also take great thought on their emotional well-being. Seeking help from a therapist or support group could help since the process can be taxing and strains relationships. Couples who got counseling both before and after IVF had more pregnancies than those who did not have therapy, according a randomized controlled experiment<sup>1</sup>. Interventions based on mindfulness-based stress reduction (MBSR) may also help women undergoing IVF have better pregnancy rates and lower anxiety, according another study<sup>2</sup>.

New studies have underlined even more the need of tackling mental difficulties during IVF. Psychological interventions—including stress management programs and cognitive behavioral therapy (CBT)—not only helped to lower melancholy and anxiety but also raised IVF success rates, according a meta-analysis by Domar. Et. al<sup>3</sup>. The study underlined how strongly emotional well-being is related to physiological reactions, such hormonal balance, which might affect the results of treatment.

Studies have also looked at the part partner support plays during the IVF process. Studies also found that women who said their spouses provided significant emotional support felt less stressed and were more likely to continue with treatment cycles<sup>4,5</sup>, so producing better general results. According to the results, overcoming the emotional challenges of IVF depends on couples encouraging honest conversation and mutual understanding<sup>6,7</sup>.

The effect of digital health tools on mental well-being during IVF is yet another area of increasing curiosity. Among patients, mobile apps and web sites providing stress management strategies, guided meditation, and peer support have become rather popular.

Furthermore, new research indicates that reducing mental suffering may depend critically on resolving stigma associated to infertility. According to a study, societal stigma surrounding infertility sometimes makes those undergoing IVF more anxious and isolated<sup>8</sup>. Interventions aimed at destigmatizing infertility—public awareness campaigns and inclusive language in clinical settings—showcased themselves as helping individuals to develop emotional resilience.

Although IVF is still a difficult procedure emotionally, continuous research emphasizes the need of thorough support systems covering from professional counseling and mindfulness programs to digital tools and society interventions. These strategies not only help to reduce emotional load but also might increase the possibility of a favorable result.

Optimizing the results of fertility treatment depends obviously on pre- and post-IVF management. By improving physical preparedness and mental resilience, correct preparation before beginning IVF can greatly affect the effectiveness of the treatment. Boosting fertility potential mostly depends on adopting good lifestyle choices include keeping a balanced diet, lowering stress, and avoiding dangerous drugs. Likewise, post-IVF treatment—including follow-up monitoring and support—is just as vital for guaranteeing a successful pregnancy and lowering the treatment-related risks.

Couples thinking about IVF should be sure to take mental as well as physical well-being into account since the procedure can be emotionally taxing. Seeking help and direction from medical professionals—including mental health counselors and fertility experts—can yield priceless insights and coping mechanisms. Along with helping others who have gone through similar events, joining support groups helps to build a feeling of community and lessens isolation during this road map.

The financial and logistical elements of the process should also be taken into account since many couples find great burden from the high expenses of IVF and related procedures. Investigating choices including insurance coverage, cost-sharing programs, or financial aid will help to ease these difficulties. Furthermore crucial to guarantee a better experience is logistical planning, which includes knowing clinic procedures and matching treatment plans with personal and professional obligations.

At last, timing the IVF cycle is crucial since variables including customized hormonal treatments or embryo transfer with the natural menstrual cycle might affect success rates. More individualized techniques made possible by developments in fertility science and technology let couples make informed decisions in line with

their particular situation and fertility requirements.

Couples who approach all these elements holistically will increase their chances of a successful outcome and negotiate the IVF process's complexity with more confidence and peace of mind.

## **Methodology**

A survey-based study was performed with individuals or couples who have completed at least one IVF cycle. Data was gathered via a web-based interface engineered to guarantee confidentiality and participant consent. The questionnaire included areas such as therapeutic practices, emotional support, and lifestyle modifications. Quantitative analysis was conducted utilizing SPSS software (version 25.0), incorporating univariate and bivariate analyses, alongside chi-square tests for hypothesis evaluation.

Using the guidance and considering the minimum of 1,00,000 couple must have gone under IVF, the calculated sample size of 384 was considered for general population (Couples / Individual) who have undergone IVF treatment.

## **Results**

The survey aimed to summarize key themes and insights from a survey focused on individuals who have undergone In Vitro Fertilization (IVF) treatment. The survey data offers a valuable glimpse into patient demographics, pre-IVF preparations, treatment experiences, emotional well-being, and post-IVF challenges. The survey shows that the majority of respondents identify as female (68.23%), while 31.77% identify as male indicating a possible inclination towards female-driven information seeking or decision-making in fertility treatments. The age of participants ranged from 29 to 40 years, with an average age of 33. These findings suggest that most respondents fall within the typical reproductive age group.

### *Previous Fertility Treatments*

More than half of the participants (57.03%) had undergone previous fertility treatments before IVF, while 42.97% had not. This indicates a high prevalence of prior fertility challenges highlighting the complexities of infertility and the multiple interventions often required before considering IVF.

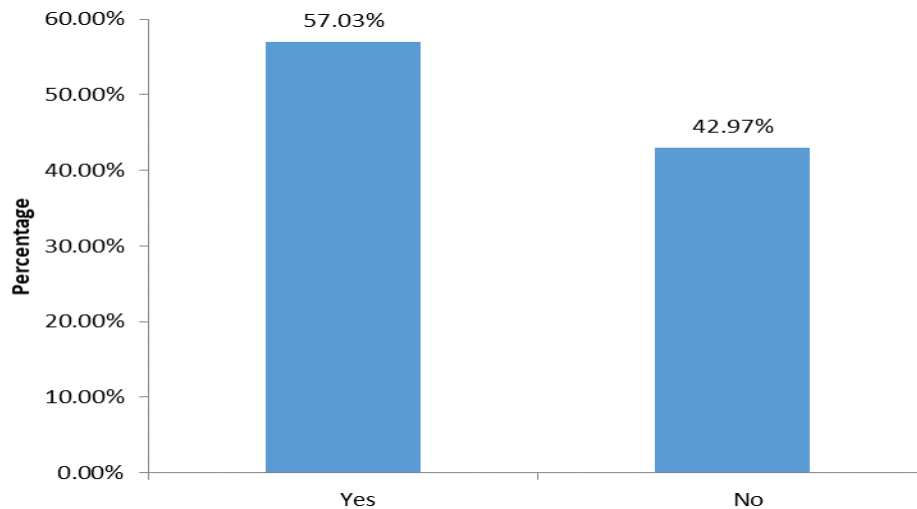


Fig 1

*Monitoring Endometrial Thickness Before IVF*

Endometrial thickness monitoring, crucial for IVF success, was advised to 44.79% of participants, while 33.07% weren't sure if they received such advice. This discrepancy suggests a potential gap in communication or understanding regarding this crucial aspect

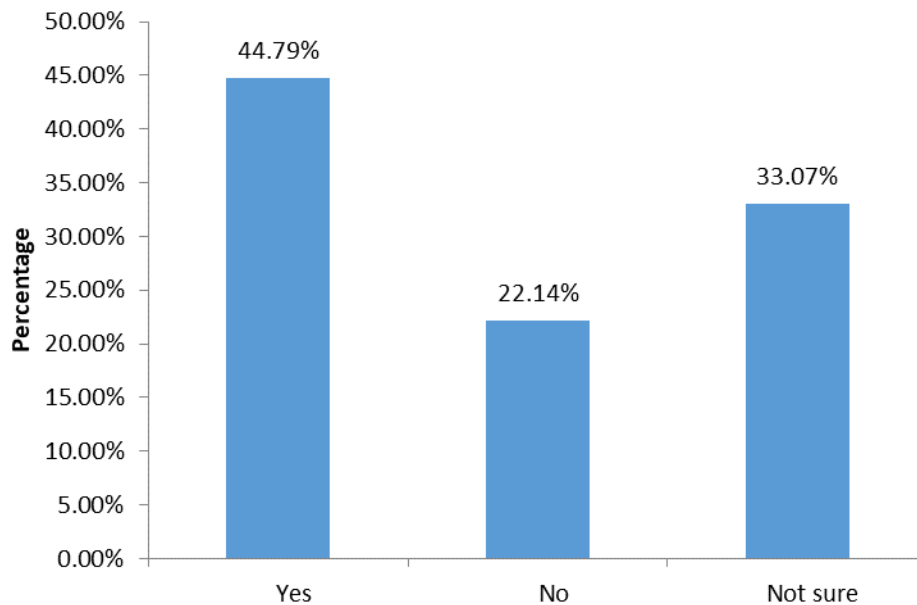


Fig 2

*History of PCOS/PCOD:*

A significant proportion of respondents (59.64%) had PCOS/PCOD before starting IVF, while 7.55% developed it during treatment. A notable 31.77% were unsure or did not find the question applicable

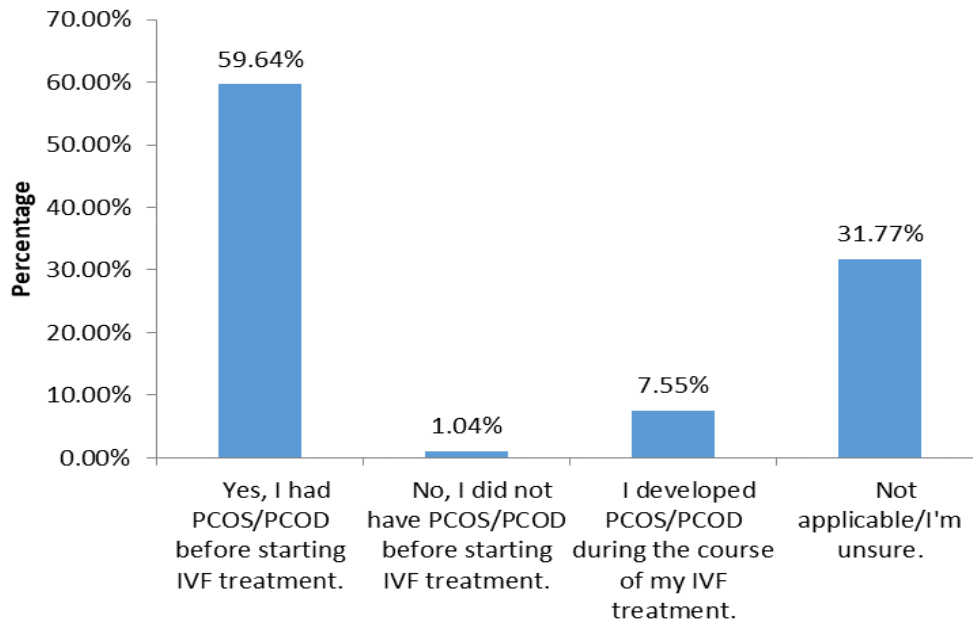


Fig 3

*Challenges During IVF Related to PCOS/PCOD*

The most common challenges related to PCOS/PCOD during IVF were poor response to ovarian stimulation (31.76%), higher medication doses required (39.97%), and increased risk of OHSS (25.13%). These findings highlight the complexities of managing PCOS/PCOD during IVF and the need for personalized treatment strategies

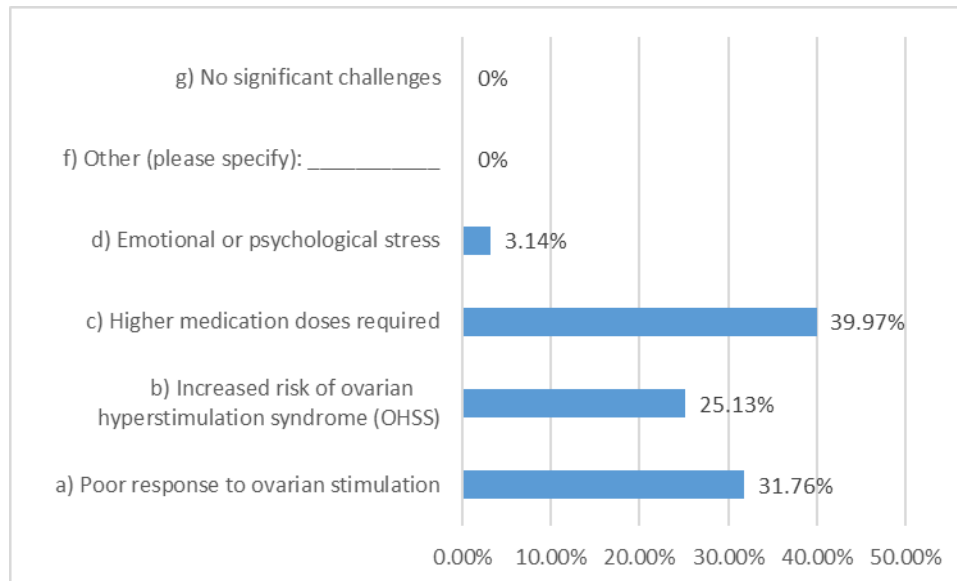


Fig 4

*DHEA Supplementation*

Slightly more than half of the respondents were advised to take DHEA supplements (52.6%), and 47.4% were not. This shows that DHEA supplementation is somewhat common.

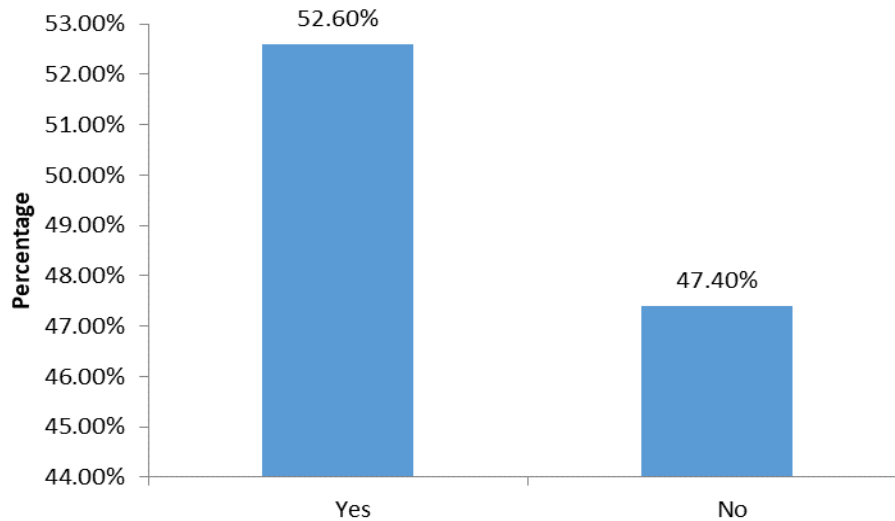


Fig 5

*Effectiveness of DHEA in improving your fertility outcomes*

Among those who took DHEA, the majority found it moderately effective (43.07%) or somewhat effective (39.11%). Only 12.38% found it very effective, and 5.45% found it not effective. Similar to Metformin, DHEA effectiveness varied.

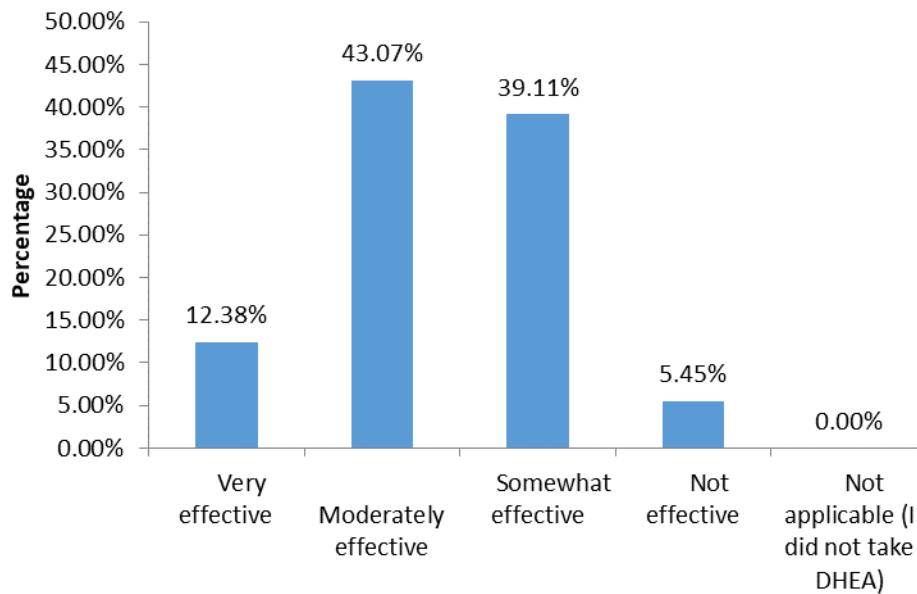


Fig 6

### AMH Testing Before IVF

The majority (72.14%) had their AMH level tested before IVF, while 27.86% did not. This indicates a common practice of AMH testing before IVF.

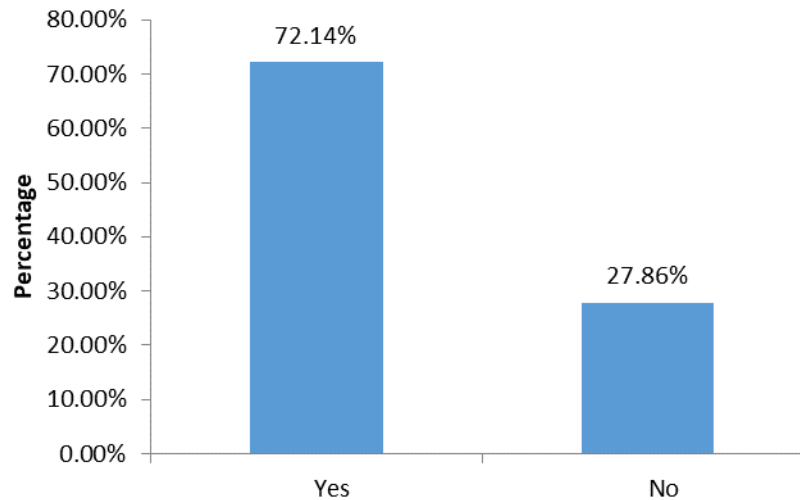


Fig 7

## Discussions

This study provides a thorough examination of male infertility, which is frequently overlooked in discussions centered on female causes. The research highlights the significance of addressing infertility as a collective experience by examining diagnostic procedures, treatment alternatives, and the psychological challenges encountered by male partners<sup>11,12,13</sup>. It underscores the necessity for enhanced coordination among specialists, including urologists and andrologists, to formulate customized therapies for male factors. The study highlights the emotional ramifications of infertility on male partners, urging for comprehensive counseling and support programs to address the needs of both couples<sup>14,15,16</sup>.

Polycystic ovarian syndrome (PCOS) and polycystic ovary disease (PCOD) pose considerable difficulties in IVF treatment owing to their intricate and multifarious characteristics. This study offers a comprehensive analysis of the management of various problems in the context of IVF. It underscores the significance of personalized regimens, incorporating the judicious administration of drugs such as metformin and gonadotropins to enhance ovarian responsiveness while reducing the likelihood of ovarian hyperstimulation syndrome (OHSS). This study provides practitioners with explicit guidance for properly managing PCOS/PCOD patients, equipping them with practical tools to address these complications<sup>16-20</sup>.

## Conclusion

This research signifies a notable progression in in vitro fertilization (IVF), tackling both clinical and non-clinical dimensions to improve success rates and the overall patient experience. The study emphasizes the significance of personalized care, comprehensive tactics, and the incorporation of emotional and psychological support into conventional IVF protocols using a multidisciplinary approach.

Significant contributions encompass innovative perspectives on enhancing endometrial receptivity via customized therapies, promoting the application of DHEA supplementation, and refining the management of disorders such as PCOS and PCOD. The study underscores the essential importance of lifestyle adjustments, alternative medicine strategies, and holistic care of male infertility in attaining excellent results.

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