

# Anxiety, reproductive difficulties and assisted human reproduction techniques (AHRT)

## Abstract

The process of facing the diagnosis of reproductive difficulties, undergoing assisted reproduction treatments and being exposed to multiple attempts to achieve pregnancy can lay bare couples to long and sustained periods of stress and the risk of developing mental health problems. According to Gómez Roig (2021), anxiety is usually present in couples undergoing fertility treatments, with the percentage being higher in women (50%) than in men (33%). It is possible to conclude that, in this framework, it is undeniable that there is a relationship between anxiety and assisted reproduction treatments, therefore, an approach to the couple with reproductive difficulties, as a dyad, with psychotherapeutic support and counseling, could prevent the incidence of anxiety in this population, decrease the rate of abandonment of treatment and increase the success of these techniques.

**Keywords:** anxiety, sterility, infertility, assisted human reproduction techniques, psychotherapeutic treatment in assisted reproduction

Volume 16 Issue 2 - 2025

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**Received:** February 22, 2025 | **Published:** March 5, 2025

## Introduction

Reproductive problems affect approximately 15% of couples (Babore et al., 2017). Infertility and sterility are different concepts. On the one hand, sterility corresponds to the inability of one or both partners to establish a pregnancy by achieving sexual intercourse without any contraceptive protection within a period of time of one year. On the other hand, the term infertility, is defined as the inability of the couple to conclude a pregnancy to term, arising from different clinics such as abortions or prenatal death.<sup>1</sup> That is, in infertile couples, fertilization does occur, but for different reasons the pregnancy is not able to reach term. I will encompass both concepts in reproductive difficulties or problems, during this article. The process of facing the diagnosis of reproductive difficulties, undergoing assisted reproductive treatments and being exposed to multiple attempts to achieve pregnancy, can lay bare couples to long and sustained periods of stress and the risk of developing mental health problems.

Problems in the couple's physical and emotional health are aggravated by the uncertainty of the outcome of assisted reproduction techniques, the financial burdens they entail, the frequent medical consultations and the multitude of tests and invasive procedures that these techniques involve. The same psychological distress is sometimes even responsible for the interruption of treatment.

## Prevalence, risk factors and clinical manifestations of anxiety

According to Gómez Roig,<sup>2</sup> anxiety is usually present in couples undergoing fertility treatments, with the percentage being higher in women (50%) than in men (33%). Recent reviews on the subject (Clifton et al., 2020), report that high levels of anxiety and depression are present in 25% to 53% of female patients before starting treatment; while this range is between 40% and 75% during assisted reproduction treatment. Generalized anxiety disorders predominating.

Anxiety disorders, involve symptoms such as: Excessive worry, concern, irritability, muscle tension, difficulty concentrating, sweating, fatigue, elevated heart rate, heart palpitations, physical tremors. Increased stress is common in couples who wish to achieve pregnancy prior to a diagnosis of infertility and as time passes and negative pregnancy tests continue. This stress can lead to anxiety

symptomatology, or aggravate it in case of previously diagnosed anxiety disorder.

To date, there is no consensus on the relationship between anxiety levels and treatment success, however, some authors have shown that patients who presented lower levels of anxiety had better results compared to those whose scores were between moderate and severe.<sup>3</sup>

Treatment failure is an important factor that can alter the burden of psychological disorders by exacerbating such problems. According to Domar et al.,<sup>4</sup> about 50% of women described this period as the worst of their lives and compared it to the experience of suffering from a serious systemic disease, such as cancer, HIV or cardiac disease.

## Assessments

Anxiety scale tools that are recommended at this stage: The Anxiety subscale of the Hospital Anxiety and Depression Scale (HADS-A $\geq$ 8), The Beck Anxiety Inventory, a 21-item measure used to assess somatic or panic-related anxiety symptoms, the Perceived Stress Scale, a 10-item questionnaire measuring the present level of self-rated stress in the last month, and the Fertility Problem Inventory, a 46-item questionnaire that measures domains considered important in understanding specifically perceived infertility related stress.

## Importance of preventive intervention for anxiety

Preventive interventions should be implemented for couples at risk for anxiety, as well as for those already suffering from anxiety. Psychological interventions to reduce psychological distress are now widely used and have demonstrated positive effects on patients, hence couples who may manifest signs of clinically relevant anxiety should be referred to a mental health professional.<sup>5</sup> Cognitive behavioral therapy, mindfulness-based therapy, counseling, and coping therapy are the most frequently adopted psychological interventions for infertile women and men.<sup>6</sup> Counseling or therapy should be indicated, especially for couples with failed cycles. Identifying affected couples is important because they can be treated or counseled before they undergo another cycle. Given that both men and women experience elevated levels of anxiety, such support should be directed at the couple as a dyad, as proposed by Ruiz-Porras, D. et al (2020). Support should include information on procedures, relaxation skills, and coping strategies.

## Discussion

It is possible to conclude that, if the anxiety experienced influences the outcome of the treatment and, on the other hand, failed results increase anxiety levels, it is undeniable that there is a relationship between anxiety and assisted reproduction treatments.

It is essential to deepen the knowledge that Mental Health professionals may have on this problem, which will allow us to develop more effective therapeutic interventions with a more appropriate cost-benefit ratio. And to work in an interdisciplinary way with other professionals.

An approach to the couple with reproductive difficulties, as a dyad; before, during and after the assisted reproduction process, with support, counseling and the use of certain psychotherapy techniques, could prevent the incidence of anxiety in this population, decrease the rate of treatment abandonment and increase the success of assisted reproduction techniques.<sup>7-12</sup>

## Acknowledgments

None.

## Funding

None.

## Conflicts of interest

The author declares that they have no competing interests.

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