

## **Exploration of subfertility treatment modalities and outcomes: A single-centre experience at Teaching Hospital Jaffna.**

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**Introduction:** Subfertility, defined as difficulty conceiving after one year of unprotected, regular sexual intercourse, is an emerging issue affecting 1 in 6 people globally and approximately 17.5% of couples in low-and middle-income countries, according to a WHO survey. Nonetheless, timely treatment-seeking behaviour and appropriate treatment options can effectively manage the burden of subfertility.

**Objective:** To describe subfertility treatment patterns and the effectiveness of available treatment modalities.

**Method:** It is an institutional-based retrospective survey conducted from August 2020 to January 2024. 780 participants undergoing treatment at the subfertility clinic of the professorial unit in Teaching Hospital Jaffna were contacted through telecommunications. Only 376 subfertile women voluntarily participated in this survey.

**Results:** The participants' age ranged between 20 to 56 years, with a mean age of 34.93 years (SD=7.242). The duration of subfertility ranged from more than 1 year to 24 years, with an average of 5.75 years (SD=4.214). The majority (91.5%) had primary subfertility, with female causes accounting for 55.9%, followed by unexplained causes for 34.6%, both (male & female) causes for 6.1% and male causes for 3.5%. Additionally, 30.1% of participants had co-morbidities, with diabetes mellitus being more prevalent (61.1%). Among 376, 59.3% of participants adhered to their treatments, 18.1% defaulted, and 11.4% switched treatments between physicians. Among those following treatments, 26% underwent induction of ovulation (IOO), 30.9% underwent intra-uterine insemination (IUI), and 17.4% underwent in-vitro fertilization (IVF). The success rate was 23.9% for IVF, 21.7% for IOO, and 18.3% for IUI. Among participants suggested for IVF, only 39.1% were continuing their treatment, while 37% of them were unable to afford IVF due to economic constraints.

**Conclusion:** The majority of women fall into the advanced maternal age category and experience prolonged duration of subfertility. The treatment outcomes vary across different methods. We recommend raising fertility awareness, early detection, and timely initiation of suitable treatments for affected couples to alleviate this burden and achieve better outcomes.