
INFERTILITY IN WOMEN: A REVIEW & REPORT

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ABSTRACT

Infertility in women is a major reproductive health problem that affects millions of women around the world. It is defined as the inability to achieve pregnancy after one year of regular, unprotected sexual intercourse. According to the World Health Organization, infertility is a disease of the male or female reproductive system and can have significant medical, emotional, and social consequences. In women, infertility may occur due to various causes involving the ovaries, fallopian tubes, uterus, hormonal balance, or age-related changes in reproductive function.

One of the most common causes of female infertility is ovulatory disorders, in which the ovaries do not release eggs regularly. Conditions such as Polycystic Ovary Syndrome (PCOS), thyroid disorders, and hyperprolactinemia can disrupt normal ovulation. Damage or blockage of the fallopian tubes, often caused by pelvic inflammatory disease or previous infections, can prevent the sperm from reaching the egg. Endometriosis is another important cause, as it can affect the ovaries, fallopian tubes, and surrounding pelvic tissues. Uterine abnormalities such as fibroids, polyps, or congenital defects may also interfere with implantation and pregnancy.

Age plays a crucial role in female fertility. As women grow older, especially after the age of 35, the number and quality of eggs decline, reducing the chances of conception and increasing the risk of miscarriage. Lifestyle factors such as obesity, smoking, alcohol consumption, poor diet, excessive exercise, and chronic stress can further decrease fertility. Environmental exposures and certain medications may also affect reproductive health.

Diagnosis of infertility involves a detailed medical history, physical examination, hormonal blood tests, ultrasound scanning, and procedures such as hysterosalpingography to assess the uterus and fallopian tubes. Treatment depends on the underlying cause and may include medications to stimulate ovulation, hormone therapy, surgery to correct structural abnormalities, and assisted reproductive technologies such as In Vitro Fertilization (IVF).

Infertility in women is not only a medical condition but also a source of emotional distress and social pressure. Early diagnosis, proper treatment, healthy lifestyle changes, and psychological support can greatly improve outcomes. Raising awareness about female infertility is essential to reduce stigma and ensure that affected women receive timely and compassionate care.

KEYWORDS: Female Infertility, Reproductive Health, Ovulatory Disorders, Polycystic Ovary Syndrome (PCOS), Endometriosis, Fallopian Tube Blockage, Hormonal Imbalance, Uterine Abnormalities, etc.

INTRODUCTION

Infertility in women is a significant reproductive health issue characterized by the inability to conceive after 12 months of regular, unprotected sexual intercourse. It affects millions of women worldwide and has considerable physical, emotional, social, and psychological consequences. Female infertility can result from a variety of factors, including ovulatory disorders, hormonal imbalances, blocked fallopian tubes, endometriosis, uterine abnormalities, and age-related decline in ovarian function. Lifestyle factors such as obesity, stress, smoking, alcohol consumption, and poor nutrition may also contribute to reduced fertility. Common diagnostic methods include medical history assessment, hormonal testing, ultrasound, and imaging of the reproductive organs. Treatment options depend on the underlying cause and may involve medications to induce ovulation, surgical correction of anatomical problems, assisted reproductive technologies such as World Health Organization-recognized in vitro fertilization (IVF), and lifestyle modifications. Early diagnosis and appropriate treatment can significantly improve the chances of conception.

Increasing awareness, reducing stigma, and providing emotional support are essential aspects of managing infertility and improving the quality of life for affected women.

Infertility in women is a major concern in the field of reproductive and maternal health. It is a condition in which a woman is unable to conceive after one year of regular, unprotected

sexual intercourse. In women older than 35 years, infertility is often considered after six months of unsuccessful attempts to become pregnant. The World Health Organization recognizes infertility as a disease of the reproductive system that affects both men and women and has far-reaching physical, emotional, psychological, and social consequences. Parenthood is considered an important part of family life in many cultures, and the inability to conceive can create considerable stress and emotional suffering for affected women and their families.

Infertility in women can be caused by disorders involving the ovaries, fallopian tubes, uterus, cervix, or endocrine system. One of the most common causes is ovulatory dysfunction, where the ovaries fail to release eggs regularly. Conditions such as Polycystic Ovary Syndrome (PCOS), thyroid disease, and hyperprolactinemia can interfere with normal hormone production and ovulation. Structural abnormalities such as blocked fallopian tubes, uterine fibroids, congenital uterine malformations, and pelvic adhesions may also prevent fertilization or implantation. Endometriosis is another important cause, as it can damage pelvic organs and reduce fertility. In some cases, the cause remains unexplained despite thorough evaluation.

Several factors increase the risk of infertility in women. Advancing age is one of the most significant factors because both the quantity and quality of a woman's eggs decline over time, particularly after the age of 35 years. Lifestyle-related factors such as obesity, smoking, alcohol use, poor nutrition, excessive exercise, chronic stress, and exposure to environmental toxins can further impair fertility. Certain medical conditions, sexually transmitted infections, and previous pelvic surgeries may also contribute to infertility.

The diagnosis of female infertility requires a comprehensive approach, including detailed medical and menstrual history, physical examination, hormonal investigations, pelvic ultrasound, and imaging procedures such as hysterosalpingography and hysteroscopy. Treatment depends on the underlying cause and may involve medications to induce ovulation, hormonal therapy, surgical correction of reproductive tract abnormalities, and advanced assisted reproductive technologies such as In Vitro Fertilization (IVF) and intracytoplasmic sperm injection (ICSI). Counseling and psychological support are essential components of treatment, as infertility often affects self-esteem and mental health.

METHODOLOGY

This study is based on a descriptive review methodology aimed at collecting, analyzing, and summarizing available information on infertility in women. The review focuses on the causes, risk factors, diagnostic methods, and treatment options related to female infertility.

(a) Sources of Data:

Data for this study were obtained from reliable and authentic sources, including:

- World Health Organization (WHO)
- National Library of Medicine (PubMed)
- American Society for Reproductive Medicine (ASRM)
- Mayo Clinic
- Standard gynecology and obstetrics textbooks
- Peer-reviewed journal articles published in reproductive medicine

(b) Search Strategy

Relevant literature was identified using keywords such as:

- Female infertility
- Causes of infertility in women
- Ovulatory disorders
- Polycystic Ovary Syndrome (PCOS)
- Endometriosis
- Tubal blockage
- Assisted reproductive technology (ART)
- Articles published in English and containing up-to-date scientific information were selected.

(c) Inclusion Criteria

The following materials were included in the review:

- Articles discussing infertility specifically in women
- Research studies on causes, diagnosis, and treatment
- Publications from recognized medical organizations

The following materials were excluded:

- Studies focused solely on male infertility

- Non-scientific or unverified sources
- Duplicate articles
- Publications lacking relevant clinical information

(d) Data Collection and Analysis

Information was systematically collected and organized under the following headings:

- Definition and prevalence of female infertility
- Causes and risk factors
- Clinical manifestations
- Diagnostic investigations
- Medical and surgical treatment options
- Preventive measures and counseling
- The collected data were compared and synthesized to present a comprehensive understanding of infertility in women.

(e) Ethical Considerations

As this study is based entirely on published literature and secondary data, no direct involvement of human participants was required. Therefore, formal ethical approval was not necessary.

(f) Limitations

The methodology relies on secondary sources and published studies, which may not include all recent advances or region-specific findings. Nevertheless, efforts were made to include authoritative and current information.

Review of Literature

- **Jeon et al. (21 May 2025)** investigated that approximately one in six people is experiencing infertility at some point in their lives. In response, health insurance coverage for infertility treatments has been strengthened. However, studies examining lifestyle factors that affect infertility remain lacking, highlighting the need to generate objective evidence to address infertility issues using national-level data sets.
- **Dagne Addisu et al. (16 May 2025)** studied that infertility is a significant public health issue that affects couples worldwide. The impacts of infertility is notably higher in Ethiopia due to various factors, such as cultural stigmas surrounding infertility and inadequate

infrastructure for diagnosis and treatment. Several fragmented primary studies have assessed factors associated with female infertility in Ethiopia; however, their findings have been controversial and inconclusive. This meta-analysis aimed to identify the factors associated with female infertility in Ethiopia.

- **P. Choudhary et al. (13 May 2025)** investigated that infertility is a public health concern. It is a condition that develops when a couple is unable to conceive a child after a year of consistent, unprotected sexual activity. Infertility can be classified as either primary or secondary. Various factors, including age-related factors, diet and nutrition, sedentary lifestyle, stress factors, weight, caffeine consumption, apparel choices, exposure to heated water, and digital technology, can be associated with reproductive well-being.
- **Jing Li et al. (20 Dec 2024)** studied that sleep disturbances are more prevalent among women with infertility. Current research increasingly highlights the significant relationship between sleep disturbances and female infertility, suggesting that sleep may be a key factor in reproductive health. In this review, we aim to delve into the complex interplay between sleep disturbances and female infertility, as well as to assess the underlying mechanisms involved, and seek to illuminate the causes of sleep-related fertility issues. The understanding of these contents may help clinicians enhance clinical strategies for managing sleep disturbances in women facing infertility challenges and provide timely support to those seeking fertility treatments.
- **Eko Sari Wahyuni et al. (2024)** studied that primary infertility, the inability of couples of reproductive age to conceive after 12 months of unprotected sexual intercourse, is a complex health problem with multiple causative factors. This literature review aimed to identify and analyze factors associated with primary infertility in couples of reproductive age. The results of the literature review found that primary infertility can be caused by various factors, both from the man (sperm quality disorders, sexual function, reproductive tract infections, chromosomal abnormalities, varicocele, lifestyle), woman (ovulation disorders, fallopian tubes, endometriosis, uterus, hormonal, lifestyle), and partner (age, lifestyle, environment, stress). These factors can be interrelated and result in primary infertility. It can be concluded that primary infertility is a complex and multifactorial health issue.

- **Fan Peiyin et al. (12 Sept 2024)** Ferroptosis is a novel type of programmed cell death dependent on iron and characterized by the accumulation of lipid peroxides in cells and is closely related to various diseases. Female infertility is a global health concern, which is associated with a variety of factors. The etiology remains unknown in many women with infertility. With further investigation into the pathogenesis of infertility, a growing number of studies have demonstrated the close connections between infertility and ferroptosis. Moreover, iron overload may be hazardous to oocytes. This review may shed some light on the diagnosis and treatment of female infertility.
- **Tanmay Bagade et al. (13 Dec 2023)** studied that infertility is associated with mental health disorders in women, even if a successful pregnancy resolves infertility. However, the link between social determinants of health (SDoH) and mental health in women with infertility is not well understood. We aimed to investigate the determinants thoroughly so that mental health screening and services can be tailored to suit women with infertility who are vulnerable to mental health disorders.
- **Marcio José Concepción-Zavaleta (4 Sept 2023)** studied a comprehensive review was conducted using Scielo, Scopus, and EMBASE databases, comprising 245 articles. The pathophysiology of infertility in women was described, including endocrinopathies such as hypothalamic amenorrhea, hyperprolactinemia, polycystic ovary syndrome, primary ovarian insufficiency, obesity, thyroid dysfunction, and adrenal disorders. The diagnostic approach was outlined, emphasizing the necessity of hormonal studies and ovarian 20 response assessments. Additionally, the treatment plan was presented, commencing with nonpharmacological interventions, encompassing the adoption of a Mediterranean diet, vitamin supplementation, moderate exercise, and maintaining a healthy weight.
- **Batara Imaneul Sirait et al. (24 Jan 2023)** studied that approximately 8-10% of couples are facing some kind of infertility problem. Infertility is defined as a couple's inability to achieve pregnancy over an average of one year without using birth control methods and while engaging in normal sexual intercourse. Primary and secondary infertility are the two types of infertility. The high percentage of female reproductive age factors influencing infertility, as well as existing studies on infertility-related factors in women, piques the researcher's interest in studying the factors that influence infertility in women. This study is an observational descriptive analytic with a chi-square design based on secondary

data collected from medical records. The majority (37,6%) of infertile women in this study were within the 31-35 age group. Most of the infertile women are primary infertile type women (81%). Indications that cause infertility include an indication of tubal damage, uterine disorders of the endometrium, and ovulation problems.

- **Nik Hussain Nik Hazlina et al. (7 Mar 2022)** studied that to assess the prevalence, risk factors and psychological impact of infertility among females. This review summarizes the available evidence, effect estimates and strength of statistical associations between infertility and its risk factors. The study results highlight an essential and increasing mental disorder among females associated with infertility and may be overlooked. Acknowledging the problem and providing positive, supportive measures to females with infertility ensure more positive outcomes during the therapeutic process. This review is limited by the differences in definitions, diagnostic cut points, study designs and source populations.

- **Sayed Abolfazl Tavousi et al. (28 Oct 2022)** studied that infertility is a prevalent worldwide health issue and is defined by the World Health Organization (WHO) as a global health problem. Considering the importance of the psychological dimensions of infertility, various measurement tools have been used to measure the variables involved in infertility, of which the most widely used are the following: the Symptom Checklist 90 (SCL90), the Brief Symptom Inventory (BSI), the State-Trait Anxiety Inventory Form (STAI), and the Depression Anxiety Stress Scale (DASS). Therefore, given the problems of infertile people in terms of psychological dimensions, the aim of this meta-analysis was to assess the psychological assessment score in infertility. Following the Preferred Reporting Items for Systematic Reviews and MetaAnalyses (PRISMA) protocol, we applied an online database with no time restriction. Data were gathered using a random-effect model to estimate the standard mean difference (SMD) for the evaluation of the strength of association analyses. Our data demonstrated a significant higher SCL90 score (CISCL90: 0.96, 0.34–1.57, heterogeneity: 94%, heterogeneity < 0.001).

- **Ketki Ambildhuke et al. (11 Jan 2022)** investigated that infertility is a problem that affects both developed and developing countries today. Many couples choose to have financial stability before conception, irrespective of age. Tubal blockage accounts for 30%-40% of a woman's fertility. Congenital abnormalities, acute and persistent inflammatory diseases, endometriosis, and different pathologies are associated with infertility and cause

partial or complete obstruction of the fallopian tubes. Approximately 30% of women experience infertility due to fallopian tube illness, with 10%- 25% of these women experiencing proximal fallopian tube obstruction. The fallopian tube is an integral part of the union of sperm, and its normal function is a prerequisite for natural conception. Tubal obstruction is a common cause of infertility. These patients are keen to unblock their blocked fallopian tubes and restore reproductive function. Accurate diagnosis and optimal treatment options are essential for treating infertility.

- **Zahra Kiani et al. (2021)** investigated that infertile women's mental health problems, including depression, are key fertility health issues that affect infertile women more severely than infertile men. Depression may threaten the health of individuals and reduce the quality of their lives. Considering the role and impact of depression on responses to infertility treatments, a systematic review and meta-analysis were conducted to investigate the prevalence of depression symptoms among infertile women.
- **Filip Szkodziak et al. (2020)** studied that Fertility may be defined as a capacity to conceive and produce offspring. Infertility is characterized by failure to establish a clinical pregnancy after 12 months of regular and unprotected sexual intercourse. Infertility concerns an estimated 8–12% of the global population, and is associated with factors including time of unwanted non-conception, age of female partner and number of diseases impacting fertility. Unexplained infertility is described as idiopathic. This study aimed to analyze and evaluate the influence of mental disorders, often considered as reasons for idiopathic infertility, on female and male fertility, including stress, depression, sleep and eating disorders, etc.
- **Supriya Hajelaa et al. (11 Mar 2016)** investigated that most of the couples suffering from infertility report it to be the most stressful and depressing period of their life. Stress can be a contributor to infertility and can adversely affect the treatment success, Recent scientific evidence suggests that psychological therapy, especially mind body therapy to counter stress can significantly improve pregnancy rates in women undergoing ART. Yoga is an ideal mind body therapy that is indigenous and one that can be effectively applied in the Indian scenario to optimize the psychological milieu of the sub fertile undergoing treatment. Infertility and ART from well-structured government run IVF centers can greatly reduce the financial burden of the infertile couple and further reduce their stress levels. Thus, stress reducing

strategies and low-cost infertility treatment facility offer to be the ideal combination to fulfill the dreams of parenthood for the suffering sub fertile couples in India.

- **Rosalie Cabry et al. (21 Feb 2014)** studied that Women's fertility potential is declining with age because of multiples intrinsic and extrinsic factors such as life style, oxidative stress and/or endocrine disruptors and is affecting the ability of these women to conceive naturally. This declining fertility potential and the late age of motherhood is increasing significantly the number of patients consulting infertility specialists. Different strategies of investigation and management are proposed to patients over 40 in order to overcome their infertility and improve the live birth rate in these patients. Intra Uterine Insemination (IUI) in women over 40 is associated with a low rate of ongoing pregnancy and IUI should not therefore be offered always as the first line of treatment. When the predictive factors are positive IVF/ICSI seem to be good alternatives until 43 years of age.

- **Ashraf Direkvand-Moghadam et al. (6 Dec 2013)** studied that the prevalence of infertility is varies worldwide ranging from 3% to 7%. The consequences of infertility are societal repercussions, personal suffering, psychological effects, clinical depression and sexual dysfunction. Therefore, the aim of the present study was a systematic review of the literature to determine the main risk factors of female infertility. MEDLINE, EMBASE and Cochrane Database were searched from 1980–2013. Information about study objectives, participants and type of study were searched systematically with extensive key words to optimize the sensitivity of data collection. Eighty-two published articles were included in the overall review. Ovarian factors, tubal and peritoneal factors, anomalies, advanced ages (over 35 years), hormonal disorders, habits, genetic factors, medical conditions and life style are the main causes of infertility in women. Changes of lifestyle, identifying and controlling chronic diseases, rapid and suitable treatments for sexually transmitted diseases can increase the chance of women fertility process.

- **Arthur L. Greil et al. (25 Jan 2010)** studied that about 10 years ago Greil published a review and critique of the literature on the socio-psychological impact of infertility. He found at the time that most scholars treated infertility as a medical condition with psychological consequences rather than as a socially constructed reality. This article examines research published since the last review. More studies now place infertility within larger social contexts and social scientific frameworks although clinical emphases persist. The other

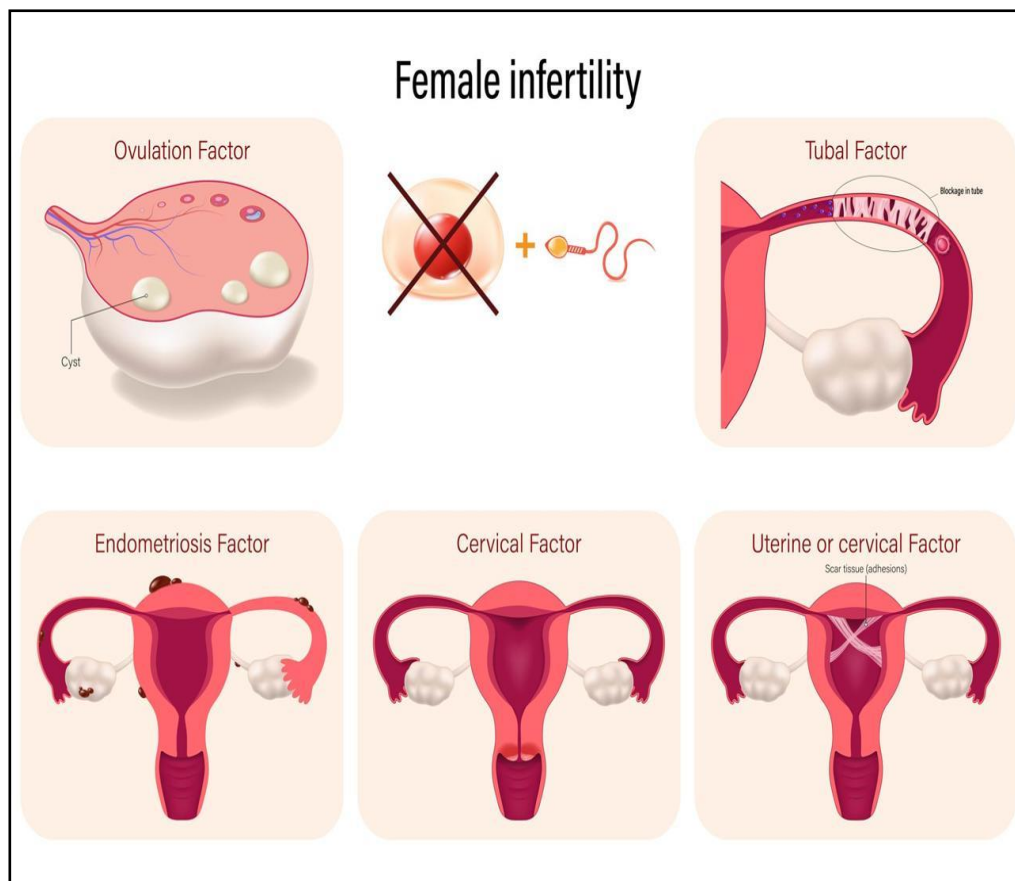
tradition uses primarily qualitative research to capture the experiences of infertile people in a sociocultural context. They concluded that more attention is now being paid to the ways in which the experience of infertility is shaped by social context.

- **Siladitya Bhattacharya et al. (11 Nov 2010)** studied that About 17% of couples in industrialized countries seek help for infertility, which may be caused by ovulatory failure, tubal damage or endometriosis, or a low sperm count. In developed countries, 80% to 90% of couples attempting to conceive are successful after 1 year and 95% after 2 years. In this systematic review we present information relating to the effectiveness and safety of the following interventions: clomiphene; drug-induced ovarian suppression; gonadotrophin priming of oocytes before in vitro maturation; gonadotrophins; gonadotrophin-releasing hormone agonists plus gonadotrophins; gonadotrophin-releasing hormone antagonists; in vitro fertilization; intrauterine insemination alone, or combined with gonadotrophins or clomiphene; laparoscopic ablation of endometrial deposits; laparoscopic ovarian drilling; laparoscopic removal; metformin; ovarian wedge biopsy; pulsatile gonadotrophin-releasing hormone; tamoxifen; tubal flushing; and tubal surgery before in vitro fertilization.

- **Michael Costello et al. (10 Sept 2019)** studied polycystic ovary syndrome (PCOS) is the most common cause of anovulatory infertility in women of reproductive age. Lifestyle change is considered the first line treatment for the management of infertile anovulatory women with PCOS, and weight loss for those who are overweight or obese. First line medical ovulation induction therapy to improve fertility outcomes is letrozole, whilst other less efficacious ovulation induction agents, such as clomiphene citrate, metformin, and metformin combined with clomiphene citrate, may also be considered. Metformin combined with clomiphene citrate is more effective than clomiphene citrate alone. In obese women with PCOS, clomiphene citrate could be used in preference to metformin alone whilst clomiphene citrate could be added to metformin alone in order to improve reproductive outcome in all women with PCOS. Gonadotrophins, which are more effective than clomiphene citrate in therapy naïve women with PCOS, can be considered a first line therapy in the presence of ultrasound monitoring, following counselling on the cost and the potential risk of multiple pregnancy.

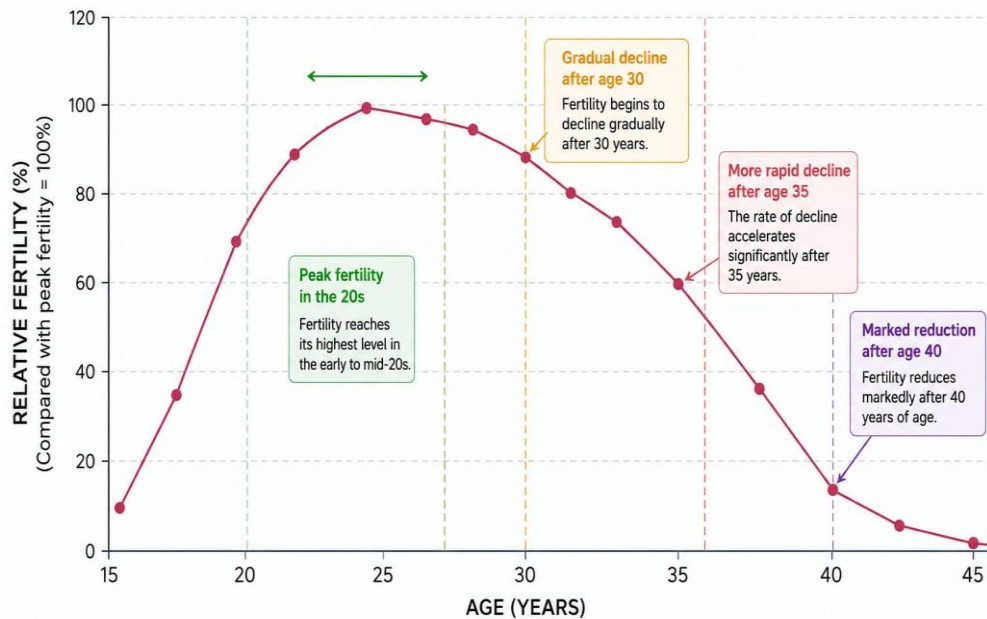
- **Borsha Neog et al. (28 July 2020)** studied that infertility is generally defined as the inability of a couple to conceive even after two or more years of unprotected sexual

intercourse. It affects approximately 60 million to 168 million people and 13% to 15% of couples worldwide. MEDLINE, Scopus, EMBASE, PUBMED and Science Direct database were searched for this study. Thirty-one research articles were examined in the overall review. The aim of the present study was a systematic review of the literature to ascertain the risk factors of female infertility. The risk factors for infertility include smoking, obesity, and alcohol consumption, advanced maternal age, sexually transmitted infection, ovarian factors, tubal and peritoneal factors, hormonal disorders, genetic factors, life style and many others. There have been numerous factors associated with the causes of infertility. Changes of lifestyle, controlling and identifying of chronic diseases, rapid and suitable treatments for sexually transmitted diseases can increase the chance of women fertility process. This research article is useful and beneficial for all medical and scientific researchers who want to uproot infertility



AGE AND FEMALE FERTILITY DECLINE

Relationship between Age and Fertility (Natural Conception)



Note: Fertility is influenced by many factors including lifestyle, health conditions and individual variation.

S. No.	Author(s)	Year	Title/Study	Investigation / Main Focus	Key Findings
1	Hafiza Iqra Kanwal et al.	2022	<i>Sonographic Evaluation of Various Causes of Female Infertility</i>	Reviewed causes of female infertility using sonography	PCOS was found to be one of the most common causes of female infertility; fibroids and endometriosis were also significant factors.
2	Xiuhua Xu et al.	2024	<i>Molecular Regulation of DNA Damage and Repair in Female Infertility</i>	Investigated role of DNA damage in female infertility	DNA damage and impaired repair mechanisms contribute to infertility, especially in PCOS, endometriosis, and ovarian reserve disorders.
3	Jing Li et al.	2024	<i>Sleep Disturbances and Female Infertility: A Systematic Review</i>	Investigated association between sleep disorders and infertility	Poor sleep quality and sleep disorders negatively affected fertility and treatment outcomes in women.
4	Chhiti Pandey et	2024/2025	<i>The Role of Nutrient</i>	Examined effectiveness of	Some supplements may improve

	al.		<i>Supplements in Female Infertility</i>	nutritional supplements in infertile women	reproductive outcomes, but evidence quality varies.
5	Francesco Maria Bulletti et al.	2025	<i>Revitalizing Reproductive Health: Innovations and Future Frontiers</i>	Investigated restorative and reproductive medicine approaches	Highlighted innovations in fertility restoration and assisted reproductive technologies.
6	Fatemah Sairat et al.	2026	<i>Environmental Contaminants and Endocrine Disrupting Chemicals in Female Infertility</i>	Studied environmental toxins affecting female fertility	Exposure to endocrine-disrupting chemicals may increase infertility risk in women.
7	Ling Lin et al.	2026	<i>Cell-Free DNA in Female Infertility</i>	Investigated biomarkers for infertility diagnosis	Cell-free DNA showed promise as a non-invasive biomarker for infertility assessment.

DISCUSSION

Infertility in women is a significant reproductive health issue that affects millions of couples worldwide and has profound medical, psychological, and social consequences. World Health Organization defines infertility as the failure to achieve pregnancy after 12 months or more of regular unprotected sexual intercourse. According to the World Health Organization, infertility affects approximately one in six people globally during their lifetime, making it a major public health concern. World Health Organization (WHO) infertility fact sheet.

Female infertility can result from a wide range of causes, including ovulatory disorders, tubal blockage, endometriosis, uterine abnormalities, hormonal imbalance, and age-related decline in ovarian reserve. Ovulatory disorders such as Polycystic Ovary Syndrome are among the most common causes and account for a substantial proportion of cases. Endometriosis can impair fertility by causing inflammation, adhesions, and distortion of pelvic anatomy. Damage to the fallopian tubes due to pelvic inflammatory disease, genital tuberculosis, or prior surgery can prevent fertilization by blocking the meeting of sperm and ovum.

Age is one of the most important factors influencing female fertility. Fertility gradually decreases after the age of 30 and declines more rapidly after 35 years because of reduced egg quantity and quality. Lifestyle factors such as obesity, smoking, excessive alcohol intake,

poor nutrition, chronic stress, and exposure to environmental toxins can also negatively affect reproductive function. In countries such as India, genital tuberculosis and untreated reproductive tract infections remain important contributors to tubal infertility.

The impact of infertility extends beyond physical health. Women often experience anxiety, depression, low self-esteem, and social isolation. In many societies, infertility carries considerable stigma, and women may face blame, marital stress, and family pressure even when male factors contribute equally to infertility. These psychosocial burdens highlight the need for compassionate counseling and partner-centered care.

Diagnosis of female infertility involves a systematic evaluation that includes detailed medical history, menstrual assessment, hormonal testing, imaging studies such as pelvic ultrasonography, and tests of tubal patency such as hysterosalpingography. Additional investigations may include ovarian reserve testing and laparoscopy in selected cases. Early identification of underlying causes improves the likelihood of successful treatment.

Management depends on the specific etiology and the woman's age and reproductive goals. Treatment options include lifestyle modification, ovulation induction medications, surgical correction of anatomical abnormalities, and assisted reproductive technologies such as In Vitro Fertilization. Advances in reproductive medicine have significantly improved pregnancy outcomes, although access and affordability remain challenges for many couples.

The diagnosis of female infertility involves a detailed medical history, physical examination, hormonal investigations, pelvic ultrasound, and tests to assess fallopian tube patency. Treatment depends on the underlying cause and may include lifestyle modification, medications to induce ovulation, surgical correction of anatomical problems, and assisted reproductive technologies such as in vitro fertilization (IVF).

CONCLUSION

Infertility in women is a significant reproductive health issue that affects physical, emotional, and social well-being. It results from a wide range of factors, including ovulatory disorders such as Polycystic Ovary Syndrome, tubal damage, Endometriosis, uterine abnormalities, hormonal disturbances, and increasing maternal age. Early diagnosis through appropriate clinical evaluation and investigations is essential to identify the underlying cause and guide treatment.

Advances in medical and reproductive technologies have greatly improved the management of female infertility. Lifestyle modifications, pharmacologic therapies, surgical interventions, and assisted reproductive techniques such as in vitro fertilization offer effective options for many women. In addition to medical care, emotional support and counseling are important because infertility can cause considerable psychological stress.

With timely assessment, individualized treatment, and comprehensive support, many women experiencing infertility can achieve successful pregnancy and improved quality of life.

Infertility in women is a complex and multifactorial reproductive health problem that affects women physically, emotionally, and socially. It may result from various causes, including ovulatory disorders such as Polycystic Ovary Syndrome, tubal blockage, endometriosis, hormonal imbalances, uterine abnormalities, and age-related decline in fertility. Lifestyle factors such as obesity, smoking, stress, and poor nutrition can also contribute to reduced fertility.

Early diagnosis through appropriate clinical evaluation and investigations is essential to identify the underlying cause and guide effective treatment. Management options range from lifestyle modifications and medical therapy to surgical procedures and advanced assisted reproductive technologies such as In Vitro Fertilization. With timely intervention and proper counseling, many women can successfully achieve pregnancy.

Overall, infertility in women is an important public health issue that requires increased awareness, accessible healthcare services, and emotional support. A comprehensive and compassionate approach to diagnosis and treatment can significantly improve reproductive outcomes and enhance the quality of life for affected women and their families.

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