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**ملاحظات:**





# **Sexual Dysfunction in a Sample of Women Having Infertility and Its Impact on Quality of Life**

*Thesis*

*Submitted for Partial Fulfillment of M.D. Degree  
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سبحانك لا علم لنا  
إلا ما علمتنا إنك أنت  
العليم العليم

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# List of Abbreviations

Abb.	Full term
<i>ART</i> .....	<i>Assisted reproduction treatment.</i>
<i>BMI</i> .....	<i>Body Mass Index</i>
<i>ED</i> .....	<i>Eating disorder.</i>
<i>FeriQol</i> .....	<i>Fertility quality of life tool.</i>
<i>FSAD</i> .....	<i>Female sexual arousal disorder.</i>
<i>FSD</i> .....	<i>Female Sexual Dysfunction</i>
<i>FSFI</i> .....	<i>Female Sexual Dysfunction Index</i>
<i>FSIAD</i> .....	<i>Female sexual interest/arousal disorder.</i>
<i>FSOD</i> .....	<i>Female sexual orgasmic disorder.</i>
<i>GHQ</i> .....	<i>General health questionnaire</i>
<i>HSDD</i> .....	<i>Female hypoactive sexual desire disorder.</i>
<i>IVF</i> .....	<i>In Vitro Fertilization.</i>
<i>MRI</i> .....	<i>Magnetic Resonance Imaging.</i>
<i>PCASEE</i> .....	<i>Physical, cognitive, affective, social, economic and ego.</i>
<i>PET Scan</i> .....	<i>Positron emission tomography.</i>
<i>QLQ</i> .....	<i>The Quality-of-Life Questionnaire</i>
<i>QOL</i> .....	<i>Quality of life.</i>
<i>SCID-I</i> .....	<i>The Structured Clinical Interview for DSM-IV Axis I Disorders.</i>
<i>SQOL-F</i> .....	<i>Sexual quality of life-Female questionnaires</i>
<i>SSRI</i> .....	<i>Selective Serotonin Reuptake Inhibitor.</i>
<i>WHOQOL</i> .....	<i>World Health Organization Quality of Life.</i>
<i>WMD</i> .....	<i>Weighted Mean Difference.</i>

# INTRODUCTION

**I**nfertility is defined as the inability to conceive after one year of unprotected sex (*Basson, 2005*). The prevalence of infertility has no difference among ethnic and racial groups. About 15 % of the worldwide population is infertile (*Thoma et al., 2013*).

The prevalence of infertility has been increased 50% compared to the last decade (*Danforth and Scott, 2008*).

Infertility is a significant health problem as well as a calamity for a couple. It triggers negative emotions such as anger, panic, despair and grief, which can adversely affect the sex life of infertile couples (*Read, 2004*).

Infertility is a distressing health condition that has diverse effects on couples' lives. One of the most affected aspects of life in infertile women is sexual function, which is a key factor in physical and marital health (*Tanha et al., 2014*).

Sexuality is one of the big issues that affect the individual and social life (*Gana and Jakubowska, 2016*).

Female sexual dysfunction takes different forms, including lack of sexual desire, impaired arousal, inability to achieve orgasm, or pain with sexual activity. Sexual dysfunction may be a lifelong problem or acquired later in life after a period of normal sexual functioning (*American Psychiatric Association, 2013*).

Female sexual dysfunction is a multifactorial condition likely to be associated with numerous anatomical, physiological, psychological factors, and likely to affect woman's self-confidence, quality of life, mental status, and relationships (*Bronner, 2006*).

In normal population Incidence of female sexual function has been estimated to range from 25.8% to 91.0% (*Hayes et al., 2006*).

Also, it was reported among normal population that a prevalence of desire difficulties occur in 64% of women, arousal difficulties in 31%, orgasm difficulties in 35%, and sexual pain in 26% (*Burri and Spector, 2011*).

According to studies infertile couples have some psychological difficulties including lack of marital satisfaction, impairment of relationships, lack of sexual satisfaction, loss of confidence in relation to sex and sexual intercourse, decreased libido, anger and negative emotions (*Damti et al., 2008*).

A recent review concluded that both the diagnosis and the treatment of infertility caused sexual problems (*Wischmann, 2010*).

Subsequent prospective, case-control studies also showed infertile couples being at risk for sexual dysfunction and sexual dissatisfaction (*Iris et al., 2013*).

It was reported that the most common sexual problems in infertile females were anorgasmia (83.7%) and decreased libido (80.7%) (*Tayeb et al., 2009*).

In one study (63.67%) of the infertile women had sexual dysfunction as compared to (46.35%) of the fertile women. The Most common dysfunction observed was impaired arousal (70%) in infertile patients. Common dysfunctions observed in fertile females were desire difficulties (40%) and orgasm difficulties (40%) (*Aggarwal et al., 2013*).

Although studies investigating the impact of infertility on female sexual dysfunction are scarce, they have consistently demonstrated that sexual complaints are very common among infertile women (*Millheiser et al., 2010*).

Clinicians call for the inclusion of psychosexual counselling in infertility programs because successful treatment of sexual dysfunction improves the outcome of infertility treatment (*Marci et al., 2012*).

## **AIM OF THE WORK**

- To assess the female sexual function among infertile women.
- To compare between infertile females and fertile females regarding sexual dysfunction.
- To determine other co-morbid psychiatric disorders in infertile women with sexual dysfunction.
- To detect socio-demographic and clinical risk factors of sexual dysfunction in infertile women.
- To investigate the impact of sexual dysfunction on the quality of life of infertile women.

# HIGHLIGHT ON WOMEN'S SEXUAL AROUSAL AND ORGASM

Sexuality plays an important role in every individual's life. Female sexuality, in particular, encompasses a variety of disciplines involving various anatomical, physiological, psychological, social, and emotional factors. Little research or attention had focused on female sexual function. Therefore, our knowledge and understanding of the anatomy and physiology of the female sexual response and the pathophysiology of female sexual dysfunction is limited. Based on our understanding of the physiology of the male erectile response, the study of female sexual dysfunction is evolving at a rapid pace (*Berman et al., 2000*).

Sexual function in females results from a complex neurovascular process that is controlled by psychological and hormonal inputs. Like any coordinated physiological response, multiple systems are involved in this function. In respect to proper vaginal and clitoral function, a sufficient blood supply is required for a satisfying sexual experience (*Sommer et al., 2001*). It may be affected by various factors such as age, education, depression, history of sexual abuse or sexually transmitted disease, experience of emotional or stress-related problems, and health status (*Roose et al., 2001*).

Psychological and physiological processes characterize the human sexual response. Sexual arousal is an emotional state and similar to other emotions, it possesses distinct antecedents (e.g.,

sexual stimuli) and patterns of expression (e.g., psychological, physiological, behavioral) serving to regulate behaviors fundamental to sexual reproduction (*Everaerd et al., 2001*).

Female sexual arousal encompasses a mental state (emotional and cognitive) and a physical state induced by various stimuli that usually produce feelings of pleasure and initiate a desire to continue the activity often to orgasm. Changes in the physical state involve increases in heart rate, blood pressure, respiration, genital blood flow and vaso-congestion, vaginal lubrication, and nipple erection (*Masters et al., 1966*). There are conditions in which mental arousal can occur and lead to physical changes. Any or all of the senses (vision, hearing, taste, smell, and touch) and fantasy can be involved in creating the arousal (*Herbenick and Fortenberry, 2011*).

By directing the attention to sexual stimulation, a woman's subjective sexual arousal, pleasure & excitement triggers sexual desire. Desire and arousal co-exist and compound each other. Sexual satisfaction can be achieved if a woman can stay focused, her pleasure continues, the duration of the stimulation is sufficiently long, and there is no negative outcome (pain or partner dysfunction). The response is circular with phases overlapping and in variable order (desire may follow arousal and higher arousal may follow the first orgasm). Desire once triggered, increases the motivation to respond to sexual stimuli and to agree to or ask for more intensely erotic forms of