

Impact Of Mental Health And Sexual Problems On Infertile Women With PCOD/S

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Abstract

Infertility is defined as the inability of a woman to become pregnant during her reproductive years, i.e., even after a year of unprotected sexual relations, and it is not always the result of a specific medical condition. Sometimes, mental health problems can also contribute to infertility, as mental health is just as important for all aspects of life as physical health. People behave and believe in some societies differently depending on their belief systems, especially if a girl or woman has polycystic ovary syndrome. When hormone imbalances arise, women's mental and sexual health may also be affected differently. Goal: To evaluate PCOS women's sexual and psychological effects on fertility. Methods: Medical databases were thoroughly searched. The terms "infertility," "PCOS," "sexual issue," and "fertility" were entered in the search fields of Medline, PubMed, NCBI PMC, and Science Direct. Between January 2020 and December 2021, the search was processed. Studies that were published in English and that investigated the sexual function of infertile people met the inclusion criteria. Additionally, the means of the definition for PCOS are nearly identical.

Keywords: PCOS, Infertility, sexual problems, mental health.

Introduction

The state of a person's sexual health plays a significant part not just in that person's mental health but also in that person's fertility, depending on whether the individual is a male or a female. Because the mind and the body are always connected together, sexual health includes sexual dysfunctions and disorders as well. If a person is having any issues related to sex, it will affect directly to their mental health and physical health. In the same way, if anyone is affected or falls under any criteria for mental health issues, it will affect their physical health or medical health.

It is possible for people to lose interest in having sexual relations at some point in their lives. This is especially true of women going through the menopause, which may exhibit

similar psychological abnormalities and may have hormone imbalances even if it is occurring during their menstrual cycle. During the time of ovulation, the egg should develop its normal range and should get under its level of maturity. However, in some circumstances, it may not develop, and the egg may not release for the ovulation either. Polycystic ovary syndrome (PCOS) is a common health issue that may affect one out of every four women in the population where we live. PCOS is also a medical condition.

PCOS may show symptoms like

1. Irregular or missed menstrual cycles

It is possible for women who have polycystic ovary syndrome to have a menstrual cycle that is less frequent, such as fewer than times per year. Additionally, it is possible for some women's

menstrual cycles to completely cease. In some cases, this may be a symptom of another hormone problem, such as early menopause.

2. Hirsutism – excessive hair growth

Girls who have an abnormally large amount of hair; who are developing hair in all areas or sections of their body; who are developing hair on their face, chin, and hirsutism may affect as many as 70 percent of women.

3. Thinning hair or hair loss

Loss of hair on the scalp, similar to that seen in men

4. Acne on the face, chest, and back

5. Skin color change

Alterations to the skin may begin, most notably around the creases of the neck, in the grain, and beneath the breasts.

6. Skin tags

Small excess flaps of skin in the armpits or neck area, PCOS can be diagnosed with a series of tests, including a physical exam, pelvic exam, pelvic ultrasonography sonogram, and a few blood tests as well.

7. Fertility problems

PCOS is a hormonal imbalance as well as a metabolic condition and it may influence the body to the ovaries. However, even if PCOS is one of the reasons in infertility, it is not required to infertility pregnant in order for PCOS to cause infertility. 5-13% of women may be affected with PCOS, but it can be treated.

The relationship between PCOS and infertility

PCOS patients may experience infertility as a result of hormonal abnormalities.

- Androgens in high level

- The formation of follicles, which are tiny sacs in the ovaries that are filled with fluid.
- Increasing the thickness of the covering that covers the ovaries
- High insulin concentrations in the blood

All of these factors have the potential to disrupt the natural process of ovulation, and one of the symptoms of this condition is that women may experience irregular or skipped periods. It is estimated that 70–80 percent of women who have PCOS also have a high prevalence of infertility.

Women with PCOS and a Psychotic Disorder

It would appear that estrogen can treat schizophrenia. The onset of psychotic symptoms is made more likely when levels fall. For instance, a number of studies' evaluations have shown that the symptoms of women with chronic psychotic disease get worse before menstruation, after childbirth, and during menopause. This are true for each of these three time periods.

PCOS women, as a result, may be predisposed to psychosis due to the fact that they are subjected to high levels of unopposed estrogen over extended periods of time because their ovulation cycles are so uncommon. When they do ovulate, they go through a period of sharply declining estrogen levels that is reminiscent of the postpartum period in women. This may help to explain why women who have PCOS are more likely to experience psychotic symptoms.

Psychotic women frequently experience amenorrhea or irregular menstruation as a result of hyperprolactinemia caused by antipsychotic medication. This is because of how the two conditions are related to one another. Additionally, up to 72% of PCOS women may experience reproductive issues as a result of hyperprolactinemia. Antipsychotic medications are linked to side effects such as weight gain, hirsutism, acne, dental issues, halitosis, alopecia,

a rash, tremor, a stiff gait, unattractive lip movements, voice changes, and incontinence. A person's appearance may suffer as a result of these side effects. Similar symptoms, including low self-esteem, perceived stigma, negative body image, and a high prevalence of anxiety and depression, are linked to PCOS.

When women are receiving treatment for psychiatric conditions, it is possible that the significant degree of symptom overlap between the two disorders prevents them from being diagnosed with primary PCOS. In addition, female patients who are afflicted with both conditions experience significantly more of each of these symptoms.

The Role of Antipsychotic Medication

Chronic administration of antipsychotics, in addition to causing symptoms similar to those produced by PCOS, has been proven to have a detrimental effect on the microbiota in the gut, hence exacerbating the dysbiosis that is caused by PCOS. In point of fact, Davey and colleagues revealed that giving rat's olanzapine over a period of three weeks led to observable shifts in the composition of their micro biomes. Antipsychotic medications have been shown to have antimicrobial effects. For example, the antidepressant olanzapine is able to fully stop the growth of *E. coli*. Antipsychotic medication has the potential to make hyperandrogenism symptoms worse for women who already suffer from both of these diseases.

Weight gain caused by antipsychotic medications can have an impact on a person's appearance as well. When compared to other medications, patients who have been treated for an extended period of time and have an elevated body mass index and increased intra-abdominal adiposity are more likely to have insulin resistance and type 2 diabetes (T2DM). Clozapine and olanzapine, in particular, have been linked to an increased risk of weight gain. When compared to psychiatric controls that were not treated,

Galling and colleagues discovered that the prevalence of type 2 diabetes was three times higher in young people who had been taking antipsychotics for more than three months. In animal models, it has been demonstrated that the development of diabetes as a side effect of antipsychotic medication. In rats, hyperglycemia and insulin resistance were observed when the plasma levels of insulin were reduced by olanzapine and clozapine.

Women who do not have psychosis but have PCOS also show signs of insulin resistance and obesity, two conditions that are closely linked to type 2 diabetes. In comparison to the general female population, PCOS sufferers are significantly more likely to be overweight and obese. In the National Health and Nutrition Examination Survey (NHANES) II, it was found that women with PCOS had impaired glucose tolerance three times more often than women of the same age. When weight and age were taken into account, the relative prevalence was found to be twice as high. Even in thin women, PCOS increases a woman's risk of developing type 2 diabetes. Women who also have PCOS and psychosis are more likely to develop psychosis, which requires treatment with antipsychotic medications.

The risk of metabolic syndrome, a condition to which women with PCOS are already predisposed, is increased by antipsychotic medications. The information that is currently available indicates that PCOS is associated with a significantly elevated prevalence of triglycerides, total cholesterol, and low-density lipoprotein cholesterol, as well as a very high prevalence of dyslipidemia. Diabetes, dyslipidemia, and obesity are all significant risk factors for cardiovascular disease, and however, it is still unclear whether PCOS-associated cardiovascular risk is brought about by other metabolic variables or is mediated by obesity. Despite the fact that the pathway is not fully understood, people with PCOS and psychosis are

both significantly more at risk for cardiovascular disease.

Patients who suffer from psychosis have a significantly increased risk of dying from cardiovascular disease. Antipsychotic medications are at least partially to blame for the alarmingly high incidence rate, which is nearly twice as high as what is seen in the general population. Patients treated for psychosis and those with polycystic ovary syndrome (PCOS) experience strikingly similar metabolic and cardiovascular side effects. Women who are afflicted with both conditions suffer greatly as a result.

Valproate is known to cause symptoms that are similar to those of PCOS and can be used alone or in combination with other medications to treat bipolar illness. Since the conceptive endocrine impacts of valproate are reversible after the therapy is stopped, patients who are kept on a constant portion of valproic corrosive ought to be observed to forestall the improvement of feminine inconsistencies and indications of polycystic ovary condition (PCOS) (Boondocks | Polycystic Ovary Condition and Crazy Problem | Psychiatry, n.d.). Patients should also be aware of the risk factors for PC. Polycystic ovarian syndrome (PCOS), which is also known as anovulatory sub fertility, affects up to 10% of females and affects the majority of women. There has been a lot of research into how it started and how it can be managed because it is such a serious issue. In spite of the numerous attempts that have been made, it has been impossible to identify the exact cause of PCOS ovulation. PCOS can manifest in a variety of ways, each of which has the potential to disrupt ovulation.

Infertility

Infertility is when a person is unable to get pregnant or have a baby on their own, even after a year of trying very hard to have sex without taking any safety precautions. It's possible that people are sexually active in their bedroom, even

though they don't have better knowledge about the proper way to have sex; at the same time, some people don't have the mind body connection while they are engaging in sexual activity; and for some people, there is no sexual contact with their partner. Every person has a unique sexual behavior, and a guy may occasionally act sexually in bed with his partner based on his own interest in a particular position or an act that he watched and was inspired by in another person. When he approached her, she should have shown interest as well; but, we don't know anything about her mental health, and the psychological condition of the other partner may be influenced as a result of the sexual behavior of the first partner.

If a woman's mental health is affected by stress, tension, anxiety that is out of control or coming under the criteria of psychological issues, and if the sexual behavior also having the improper manner and out of control less in action like any sexual disorders and dysfunctions also make a woman infertile. Mental health is more important in a woman's fertility, but at the same time, the sexual behavior and it is related problems also may affect a woman's fertility very pointedly.

Sexuality and sexual problems

According to the World Health Organization (WHO) and the World Association for Sexual Health (WAS), sexuality is an essential component of human existence, is influenced by a variety of factors, is diverse, and cannot be separated from the essential aspects of human life. It is essential to both psychological well-being and quality of life to have a healthy sexuality. From a historical perspective, we discovered that the definition of sexuality is not universally agreed upon. Woods explains sexuality from a holistic viewpoint, which indicates that sexuality is involved with facets of life including biology, psychology, sociology, spirituality, and culture. In addition, there are three key aspects of sexuality, which include a

person's sexual self-concept, their sexual connections, and their sexual functions.

According to McCabe and colleagues, sexuality is a significant component of people's life and encompasses a diverse range of mental processes, emotional states, and behavioral expressions. Master, in his opinion, the phenomenon of sexuality can be broken down into the following categories: clinical, moral, cultural, biological, psychological, behavioral, and clinical. Similar to this, Bernhard's theory asserts that sexuality is a multifaceted phenomenon that can be broken down into its biological, economic, psychological, and spiritual components. Sexuality, according to McCarthy et al.²¹, affects one's self-identity, communication, the sharing of pleasure, the deepening of intimacy, and it may even lower stress levels in one's life. However, if we use the definition of sexuality that was provided earlier, we can see that sexuality encompasses more than just the physical capacity to sex or conceive; rather, sexuality is an essential component of human life that touches on a diverse range of topics. In conclusion, Sexuality provides clear definitions on every dimension and a useful conceptual framework for holistic sexuality-related research, such as the following: 1) Sexual self-concept includes body image, sexual schema, and sexual esteem, as well as one's perception of one's own suitability for masculine or feminine roles. 2) Sexual self-concept is a person's perception of their gender identity. 3) The term "sexual orientation" refers to these, which a number of studies have found to be significant (Peng, 2011). If they have a sexual problem, they may have impaired fertility and may not be able to enjoy proper sexual pleasure because of it, especially if they are unable to conceive. and 2) Sexual relationships are interpersonal relationships in which one person shares one's sexuality with another. My own observation is that many people who have sexual

problems but can't get a diagnosis are living with infertility without realizing it.

They may need proper diet counseling, or they need to know about their diet for getting pregnant; what are the proper foods to consume, the ability of reproduction is closely connected with a person's diet. Abstinence or improper sexual activities may have an adverse effect on their fertility. Giving proper education on sex may help them to get pregnant if it is only under educated in this case. Because having a child is the primary objective, sexual activity may lose some of its spontaneity and erotic value as a result. Because of this, one's capacity for personal sexuality may be impacted, and it may also lead to a variety of sexual dysfunctions.

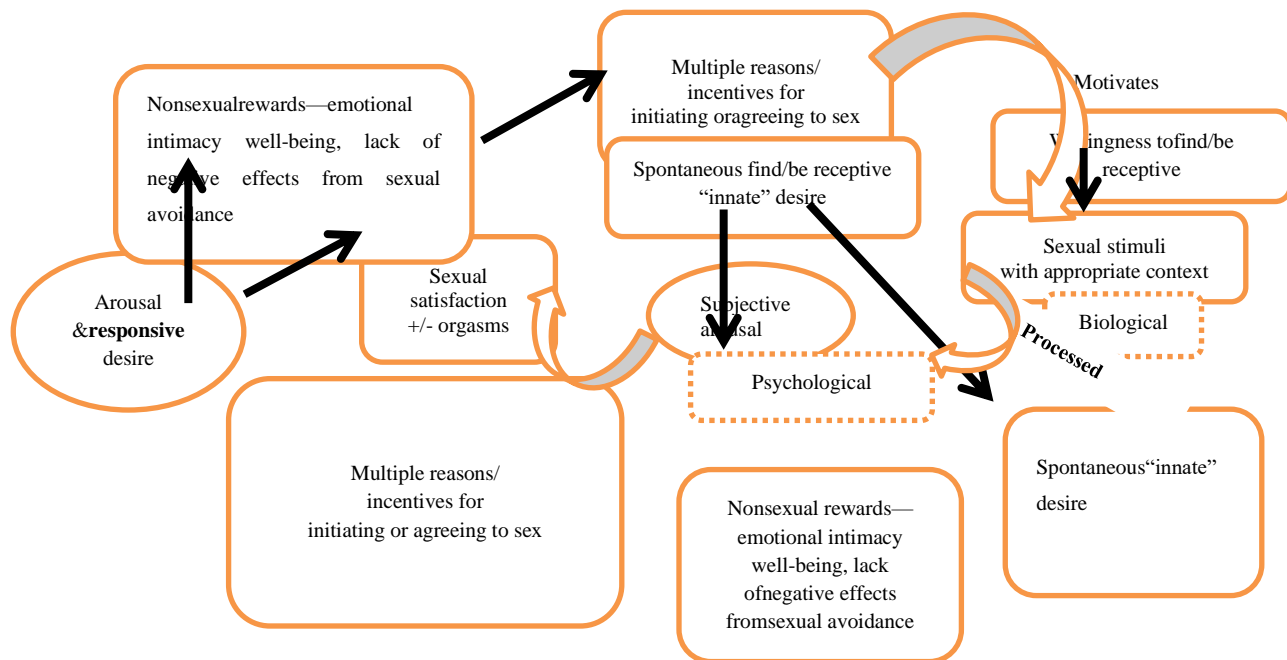
A person is said to have sexual dysfunction if they are having issues with their sexual desire, arousal, or orgasm. Sexual problems are extremely prevalent. There are estimates that as many as 30% of males and 40% of women are affected by it. It is even more typical for couples who are coping with infertility to experience this. People have a tendency to disregard or minimize the sexual issues that are experienced by infertile couples. Many people are under the impression that the problems will either resolve themselves or won't have any significant impact in the long run.

When the stresses of infertility therapy are no longer present, a person may find that they no longer have certain sexual problems. However, sexual difficulties frequently persist or become even more severe after a course of treatment is completed or after a couple becomes parents. Even couples who never experience significant sexual issues may discover that they go through periods in which they have reduced sexual desire and satisfaction. This may be the result of emotional stress, the physical demands of infertility, or a particular medication..(Sexual Dysfunction and Infertility)

Female Sexual Interest/Arousal Disorder:

Figure 3. Women's circular sexual response cycle of overlapping phases of variable order by Rosemary Basson. [Reprinted from Basson R, Brotto LA, Laan E, Redmond G, Utian WH.

Assessment and management of women's sexual dysfunctions: problematic desire and arousal. *J Sex Med.* 2005;2(3): 291–300 with permission from Elsevier].



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Mental health:

Good mental health can help to conceive and proper pregnancy and normal delivery; people with stress, anxiety, and tension may affect their sexual relationship, and sexual issues may easily affect people's mental health. There is no proof that mental illness will affect fertility, even though the majority of people believe that a lack of mental health will lead to infertility. If it leads to sexual troubles, it may affect their reproductive health as well as their mental health, and a person's mental health might influence their fertility. If it leads to mental health concerns, it may damage their fertility health. Infertility is viewed as an issue in practically all cultures and nations, and it is believed that 10–15% of couples who are of reproductive age are affected by the

condition (Boivin 2007). According to the World Health Organization (WHO), between 8% and 12% of married couples around the world struggle with infertility (Hsu 2002; World Health Organization 2014). The term "infertility" most commonly relates to

Infertility results from a person's inability to contribute biologically to the process of becoming pregnant. Additionally, it may refer to the condition in which a woman is unable to carry a pregnancy to its natural conclusion. (Lash 2008) or to the inability of a couple to achieve stress, sadness, and anxiety are common outcomes of infertility. (Doyle & Carballo, 2014) Infertility may influence mental health and to the reverse direction too. Pregnancy after trying for at least

one year to do so without using any measures of birth control (Cooper 2010).

Infertility was reported by approximately one in five women and one in ten men, and approximately half of those who had infertility had sought medical treatment for the condition. There was a correlation between infertile women and men having a higher prevalence of psychiatric illness compared to women and men who did not experience infertility (Klemetti et al., 2010)

Despite the fact that certain studies have established a correlation between sadness and increased rates of infertility, no one has been able to conclusively determine whether or not depression itself can cause infertility. Some people believe that this could be because some of the hormonal abnormalities that are associated with both illnesses are shared by both of them.

Additionally, depression can result in lifestyle choices that may have a negative impact on a woman's fertility. For instance, depression can lead to either an increased hunger or a decreased appetite, and infertility can be caused by either being overweight or underweight. Depression makes a person more prone to engage in risky behaviors such as smoking and drinking, both of which can have a negative impact on fertility .(Depression-Related Infertility Causes and Treatment,)

Conclusion

As a conclusion, we may state that a woman's mental and sexual health can also have an impact on her fertility, with either favorable or negative outcomes. If a woman misses her periods, it indicates that she is experiencing something unusual. It's possible that the missed periods are a sign of pregnancy, but they can also be a sign of

PCOS, or polycystic ovarian syndrome. As a result of PCOS, which has hormonal and endocrine complications, women may experience a variety of physical and mental health problems. Additionally, some of these problems may have an impact on a woman's fertility.

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