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Male Sexual Dysfunction in Psychiatric Illnesses

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Introduction

Sexual dysfunction affects the sexual life of both males and females and can lead to loss of marital harmony. The Diagnostic and Statistical Manual, 5th edition (DSM-5) released by the American Psychiatric Association (APA) defines sexual dysfunction as - an individual's inability to experience sexual pleasure and respond sexually [1]. Male sexual dysfunction includes [1]

- Premature ejaculation
- Delayed ejaculation
- Erectile dysfunction
- Hypoactive sexual desire disorder
- Substance and medication induced sexual dysfunction
- Other specified and non-specified sexual dysfunction

If an individual's sexual difficulties are the result of inadequate sexual stimulation, it should not be called as sexual dysfunction [1].

Sexual dysfunction in males can be lifelong (present since first sexual experience) or acquired (sexual dysfunction develops later with initial normal sexual experiences) and it may be situational (limited to certain situations or partners or certain type of stimulation) or generalized (irrespective of type of stimulation, partner or situation) [1]. Many factors influence sexual dysfunction in males, which can be Medical factors, Partner related factors, Relationship related factors, individual vulnerability factors and cultural & religious factors [1]. The DSM-5 diagnostic criteria, does not entertain



the diagnosis of sexual dysfunction, if it is secondary to underlying psychiatric illness or substance use or underlying medical illness or relational problems [1].

Male sexual dysfunction in mood disorders and schizophrenia-

Mood disorders and schizophrenia are a common group of psychiatric illnesses, prevalent worldwide affecting all ages, both genders irrespective of race and ethnicity. Mood disorders include entities like – depression, bipolar disorders, dysthymia, seasonal affective disorder and cyclothymia. Mood disorders usually follow an episodic course. The course of schizophrenia is usually a continuous, fluctuating course, though episodicity is also possible with this mental illness. Patients with mood disorders are treated with mood stabilizers, antipsychotics and antidepressants whereas antipsychotic is the mainstay of pharmacological treatment in schizophrenia. Sexual dysfunction is commonly reported in patients with mood disorder and schizophrenia, which can be broadly due to two important reasons –

1. Sexual dysfunction -due to the underlying illness
2. Sexual dysfunction due to side effects of medications

All psychotropic medications (mood stabilizers, antipsychotics and antidepressants) used for treatment of mood disorders and schizophrenia have adverse effect on the sexual functions [2, 3, 4].

Sexual dysfunction can occur in patients with depression. Men with depression have low desire for sex (decreased libido) as well as erectile dysfunction [3, 5]. The sexual dysfunction due to depression usually improves with recovery from depression and is a transient phenomenon. Antidepressant induced sexual dysfunction is a treatment emergent phenomenon and persists as long as the individual continues the drugs, irrespective of improvement of depression.

Men with bipolar disorder, during their manic phase may experience sexual dysfunction. It is mostly drug induced or due to excess use of substances during manic phase, however the illness itself



can also attribute to sexual dysfunction. During manic phase the sexual drive may increase but performance may not increase proportionately, which may lead to the personal perception of sexual dysfunction. Men indulge in high risk sexual behavior during the manic phase may acquire sexually transmitted diseases, which may in turn give rise to sexual dysfunction.

Men suffering from schizophrenia also experience sexual dysfunction. During the psychotic phase, individual may experience decrease in libido [3]. Due to disorganized perception and thinking, individual's perception and experience regarding sex may not be appropriate which may attribute to decreased sexual drive and arousal. Negative symptoms, disorganized behavior can also be attributed to sexual dysfunction. Antipsychotics used to treat schizophrenia have significant impact on the sexual functioning of men.

Substance use disorders and male sexual dysfunction

Substance-Induced Sexual Dysfunction is diagnosed when sexual dysfunction results from substance intoxication or withdrawal. Substances that can cause

sexual dysfunction include alcohol; amphetamines or related substances; cocaine; opioids; sedatives, hypnotics, or anxiolytics; and other or unknown substances. Alcohol suppresses CNS activity and decreases testosterone concentrations in men. Opioids such as heroin have such adverse sexual effects as erectile failure and decreased libido. Patients with opioid dependence syndrome, who were on methadone, also report sexual dysfunction [2]. Prolonged use of cannabis depresses testosterone concentrations.

Alcohol and other drugs of abuse are often thought to improve sexual performance. In small doses they appear to improve sexual performance by decreasing inhibitions, by their anxiolytic effects and mood elevating properties. However in the long run, they significantly impair sexual function. Evidence that the sexual dysfunction is substance induced can be got from the history, physical examination and laboratory reports. Treatment involves abstinence from the substance, treatment of substance dependence and therapy to regain sexual function [6].



Medication induced Sexual Dysfunction

Decreased sex drive, erectile failure (impotence), decreased volume of ejaculate, and delayed or retrograde ejaculation can result from pharmacological agents especially psychotropic medications.

- **Antipsychotic Drugs:**

Antipsychotics cause sexual dysfunction by elevating serum prolactin and by dopaminergic, cholinergic and adrenergic blockade. Typical antipsychotics such as chlorpromazine, thioridazine, trifluoperazine, and haloperidol cause problems with erection and ejaculation due to strong receptor blocking properties. Thioridazine can cause retrograde ejaculation. Rarely priapism has been reported with antipsychotics. Second-generation antipsychotic drugs have a lower incidence of sexual side effects compared to typical antipsychotics.

- **Selective Serotonin Reuptake Inhibitors:**

Adverse sexual effects can be due to increased serotonin concentration and increased prolactin. Paroxetine and fluoxetine are most associated with sexual adverse effects. Cyproheptadine, an antihistaminic with antiserotonergic effects; amantadine, a dopamine agonist; yohimbine, a central α_2 -adrenergic receptor antagonist; methylphenidate and dextroamphetamine, which are dopaminergic and have adrenergic effects and sildenafil, a nitric oxide enhancer used to treat erectile dysfunction can be used to treat SSRI induced sexual dysfunction.

- **Other drugs:**

The tricyclic antidepressants have anticholinergic effects that cause sexual side effects. Beta blockers and anticholinergic agents are other medications that are commonly associated with sexual dysfunction.



Male sexual dysfunction in anxiety disorders:

Anxiety plays an important role in the pathogenesis and maintenance of sexual dysfunction. Comorbid anxiety disorders and sexual dysfunction are relatively common and in many cases it is unclear which the primary disorder is. Anxiety represents the final common pathway by which there is impairment of sexual response. The release of epinephrine and norepinephrine due to anxiety can affect arousal, orgasm and sexual desire [7]. Anxiety or fear of failing to meet a partner's expectations is one of the most common causes of premature ejaculation [8, 9]. Treatment of anxiety is therefore a very important part of treatment of sexual dysfunction.

Conclusion

Sexual dysfunction is commonly seen in patients with psychiatric disorders. Careful evaluation of the history, treatment review and analysis of different factors attributing to sexual function can help in dissecting out the etiopathology of sexual dysfunction in men with psychiatric disorders [10]. Adherence to psychotropic treatment is affected by the side effect profile of the psychotropic medication. Patients, who develop sexual dysfunction with psychotropic medications frequently, become non adherent to the medication [2]. Drugs such as phosphodiesterase 5 (PDE-5) inhibitors are helpful in treatment of psychotropic medication induced sexual dysfunction in males [2, 4].



Competing interests

The authors declare that they have no competing interests.

Authors' contributions

Both authors conceptualized, carried out literature review, analysed the data and wrote the manuscript. Both authors read and approved the final manuscript.

Acknowledgements

This article was written purely for academic purpose. No funding was granted from any organization. The views expressed herein are those of the authors.

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Cite this article as: Kar S K, Dhanasekaran S. Male sexual dysfunction in Psychiatric illnesses. Indian Institute of Sexology Bhubaneswar Feb 2014.