

## **Serotonin selective reuptake inhibitors (SSRIs) and female sexual dysfunction (FSD): hypothesis on its association and options of treatment**

### ABSTRACT

Sexual dysfunctions are commonly seen in women on selective serotonin reuptake inhibitors (SSRIs). The complexities of female sexual functioning are reflected through modulation of inter- playing factors like the neuropsychophysiological factors, inter-personal and relationship issue, psychiatric co-morbidities and physical disorder. The incidence of SSRIs-induced FSD is difficult to estimate because of the potential confounding effects of SSRIs, presence of polypharmacy, marital effect, socio-cultural factors and due to the design and assessment problems in majority of the studies. The exact mechanism of FSD-induced SSRIs is unknown. It has been postulated that although SSRIs may modulate other neurotransmitter system such as nitric oxide (NO), noradrenergic and dopamine in inducing FSD. In the present review, we highlight current evidence regarding potential mechanism of SSRIs in causing FSD, which include low sexual desire (low libido), arousal difficulties (lack of lubrication), and anorgasmia. The specific association of FSD to SSRI use, has not been elucidated. The relationship is dose-dependent, and may vary among the groups with respect to mechanism of serotonin and dopamine reuptake, induction of release of prolactin from the pituitary gland, anticholinergic side-effects, inhibition of NO synthesis and emotional-memory circuit encryption for sexual experiences. Various interventional strategies exist regarding the treatment of SSRI-induced FSD and this includes tolerance, titration dosage, substitution to another antidepressant drug and psychotherapy. There is a need of better understanding of SSRIs-induced FSD for better treatment outcome.

**Keyword:** Antidepressant; FSD; SSRIs; Dopamine reuptake; Psychiatric disorders; Serotonin receptors