

The Psychopharmacology of Sex, Part 2

Effects of Drugs and Disease on the 3 Phases of Human Sexual Response

Stephen M. Stahl, M.D., Ph.D.

Issue: Many drugs can uniquely affect the phases of human sexual response, both positively and negatively, according to their neuropharmacologic mechanisms of action. Various diseases and disorders can also impact the different phases of the human sexual response, according to their pathophysiologies. Understanding these issues will assist clinicians in determining whether sexual dysfunction is due to a disease or to a drug, which will allow rational management of sexual disorders by targeting the specific dysfunctional phase of the sexual response with a drug that has an appropriate and compensatory neuropharmacologic mechanism of action.

Last month's BRAINSTORMS¹ provided a simplified formulation of the neuropharmacology of normal human sexual response: the initial phase is libido, or desire, linked to satisfaction with sex; the second phase is arousal of genital tissues, resulting in erections in men and genital lubrication and swelling in women; and the final phase is orgasm, accompanied by ejaculation in men. Compare and con-

trast this normal physiology (Figure 1) with the disorders (Figure 2) and drugs (Figure 3) that affect all 3 phases of normal sexual response.

Various diseases, disorders, and conditions can affect any of the stages of human sexual response^{2,3} (Figure 2). Men may be more likely in general to have a disorder of arousal (erectile dysfunction or impotence), whereas women may be more likely in general to have a disorder of libido (lack of sexual desire or satisfaction). Some of the most common disorders that can affect each of the 3 phases of human sexual response are indicated here.

Numerous drugs affect sexual functioning, sometimes one phase but not another.³ Some of the most commonly used drugs and their effects on specific phases of the sexual response are indicated in Figure 3.

BRAINSTORMS is a monthly section of The Journal of Clinical Psychiatry aimed at providing updates of novel concepts emerging from the neurosciences that have relevance to the practicing psychiatrist.

From the Neuroscience Education Institute in San Diego and the Department of Psychiatry at the University of California San Diego.

Reprint requests to: Stephen M. Stahl, M.D., Ph.D., Editor, BRAINSTORMS, 8899 University Center Lane, Suite 130, San Diego, CA 92122.

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Figure Abbreviations

NDR1 = norepinephrine-dopamine reuptake inhibitor
SDA = serotonin-dopamine antagonist
SSRI = selective serotonin reuptake inhibitor
Symbols: + = increases, – = decreases.

Figure 1

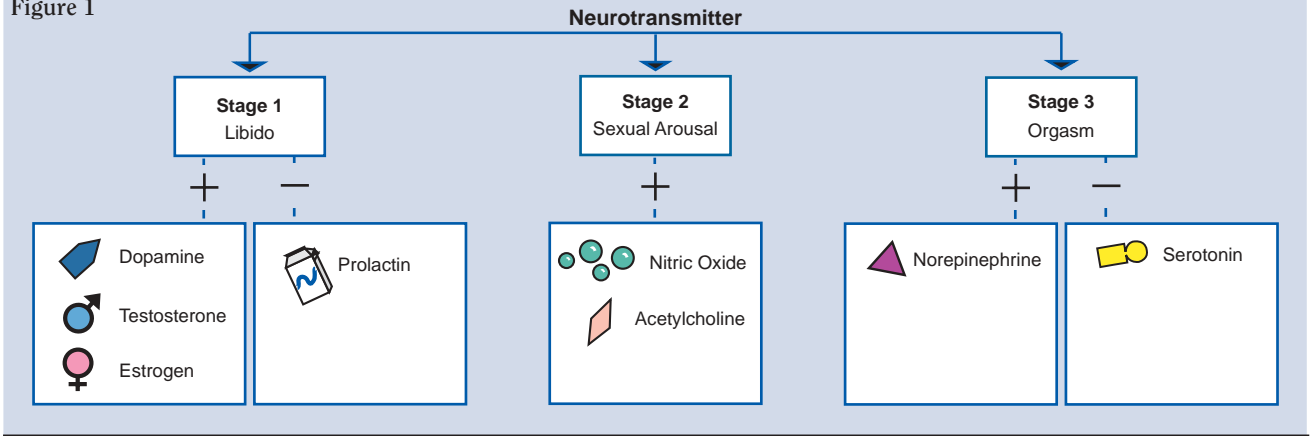


Figure 2

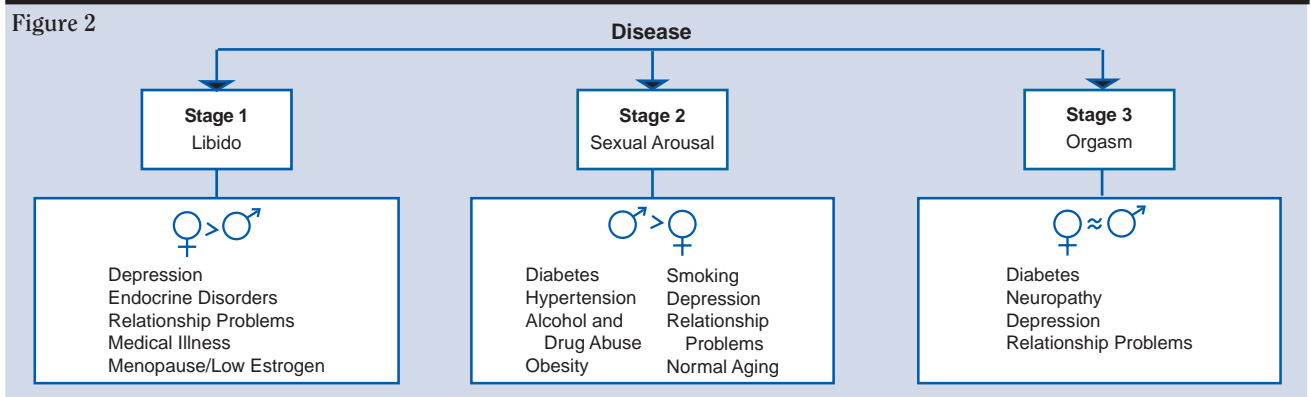


Figure 3

