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Sexual Side Effects of Psychiatric Medications in Women: A Clinical Review

Laura L. Post, MD, FAACS

Abstract

Sexual side effects of psychiatric medications have been estimated to occur in 60% of male clients (1) and 30% of female clients (2). Despite a body of literature relating individual medications to specific sexual side effects, few studies have satisfactorily addressed the psychotropic-induced sexual dysfunctions in women. The spectrum of known sexual side effects resulting from psychopharmacologic interventions will be reviewed. Guidelines for appropriately addressing the possibility of sexual side effects within a therapeutic relationship, for maximizing reporting of sexual side effects, and for possible treatment approaches to sexual side effects will be described.

INTRODUCTION

The past twenty years have shown a dramatic surge in the approaches to and tools of biological psychiatry. Concomitant with these advances has emerged awareness of psychotropic-induced sexual side effects. These side effects may contribute to physiological morbidity, to embarrassment and shame, to noncompliance, to stress-induced symptom exacerbation, and, arguably, to mistrust of psychiatric practitioners. Representatives of several classes of psychiatric medications—including benzodiazepines, beta-blockers, lithium, monoamine oxidase inhibitors, neuroleptics, and tri- and tetra-cyclic antidepressants—have been reported to cause some form of sexual impairment.

Known sexual side effects associated with psychotropics include anorgasmia (3), unsatisfying or painful orgasm (4), altered libido or sexual willingness, erectile failure, priapism (5), menstrual irregularities, delayed or retrograde ejaculation (6), and altered sexual sensation and sensitivity (7,8). Yet, the sexual side effects of psycho-pharmaceuticals are still among the most subtle, least discussed, and poorly understood consequences of modern medical treatments.

The psychiatric literature contains numerous case reports but few well-designed research studies addressing sexual side effects (9). This knowledge gap may reflect widespread erotophobic attitudes, skewed funding and educational priorities around the importance of human sexuality, or inadequate training of prescribers in eliciting sexual side effects from clients.

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In addition, very few of the existing studies include female subjects (10,11,12); those that do often fail to separate outcomes by gender, rendering problematic the drawing of conclusions relevant to women clients. The lack of attention to incidences and experiences of psychotropic-generated sexual side effects in women may occur for several reasons. First, the ease of measurement of male sexual arousal (erection) and orgasm (ejaculation), and the relative simplicity of male endocrine functions, may have contributed to a research bias toward male subjects. Second, the sexual emotions, responses, and behaviors of women are frequently constrained by culturally-based and sexist criteria; the same cultural sexism may reduce the motivation for the comprehensive examination of the potential actions of psychiatric medications on female sexuality. (This hypothesis is somewhat supported by the dearth of published information on general female sexual function).

Third, the narrow definitions of female sexual dysfunction may result in inconsistent reporting or inappropriate data analysis. For example, querying lesbian clients about intercourse may be irrelevant; not querying women specifically about fantasy, about lubrication, about ejaculation, or about the size, shape, sensitivity, and sensation of breasts, vagina, and clitoris may lead to omission of vital information. Finally, the subjectivity inherent in the determination and describing of sexual impairment may lead to variations between studies, introducing difficulty in compiling data: there is a difference between libido and orgasm. Nevertheless, the available reports do suggest some general patterns of sexual side effects, in women, from psychotropics.

SUMMARY OF PSYCHOTROPIC-INDUCED SEXUAL DYSFUNCTIONS IN WOMEN

In female patients, several psychopharmacologic agents have been implicated as causative of sexual side effects. Alprazolam (13), amoxapine (14), clomipramine (15,16,17), diazepam (18), fluphenazine (19), flurazepam (20), imipramine (21,22), MAOIs (21,23,24,25,26), thioridazine (27), and trifluoroperazine (27) have all been specifically reported to inhibit orgasm. Fenfluramine has been reported to enhance orgasm (28).

However, the story is not so straightforward. Desipramine has been reported to cause anorgasmia (29) and not to cause anorgasmia (22). Fluoxetine has been reported to inhibit orgasm (30,31,26) and to enhance orgasm (32). Similarly, trazodone has been reported to increase (33) and decrease (34) libido.

PERSPECTIVES ON PHARMACOSEXOLOGY

The relationship between psychiatric medications and resultant sexual dysfunction is complex. Animal models suggest that sexual function is dependent upon centrally-acting dopamine agonists and is inhibited by the serotonergic system (35).

In human males, decreases in libido have been attributed to anti-dopaminergic and serotonergic effects (36), as well as to limbic fluctuations and to decreased levels of endogenous opioids and testosterone (37). Human male erection, mediated

principally by autonomic neurons, may be diminished: a) by interference with central dopaminergic output (38); b) by interference with beta-adrenergic activity or by enhancement of alpha₁-adrenergic transmission (39); c) by interference with the cholinergic spinal reflexes necessary for erection; or d) by interruption of the neuronal-hematological filling of the corpora.

Human male ejaculation, mediated by alpha₁-adrenergic receptors, may be antagonized by alpha₁-adrenergic blockade. Human male orgasm [which is not necessarily identical with ejaculation], thought to be central in origin, may be eliminated by serotonergic agents (40). Clearly, the serotonergic agonism, the dopaminergic and cholinergic blockade, and alpha₁-adrenergic effects resulting from some psychiatric medications might alter sexual function in male clients (41).

Though anatomic analogies may be made between male and female libido, between male erection and female lubrication/labial swelling, between male ejaculation and female ejaculation, and between male and female orgasm, the neurophysiology of female sexuality—animal or human—is less completely understood than the male counterpart. Conclusions about effects, on women, of anti-dopaminergic, anti-alpha₁-adrenergic, anticholinergic, and serotonergic effects remain theoretical and speculative.

CLINICAL DISCUSSION AND GUIDELINES

Psychotropic-induced sexual side effects may be ameliorated with biochemically-informed interventions. Nevertheless, adequate identification and treatment of psychotropic-induced sexual side effects require an informed, discerning, and sensitive psychiatric practitioner, since many patients will not spontaneously report such concerns. What follow are some suggestions for appropriately addressing the possibility of sexual side effects within a therapeutic relationship, for maximizing reporting of sexual side effects, and for approaching treatment of sexual side effects.

When a patient experiences a sexual dysfunction related to a psychiatric medication, the initial priority is to determine whether the dysfunction is medication-induced. This may be done, with some certainty, by retracing symptom development in relation to medication dosing, in the absence of other prescribed or over-the-counter medications and in the absence of concomitant emotional stress. If an etiological connection between psychiatric medication and sexual side effect appears likely, then the next step is to assess the extent of discomfort experienced by the patient, since the patient who is substantially bothered by the dysfunction will participate most cooperatively in treating the side effect. The simplest treatment approach to psychotropic-induced sexual side effects is to make only a psychological intervention. In certain instances, such an action might be indicated; anorgasmia induced by MAOIs has been reported to remit naturally (42). An additional psychological intervention might be referral to couples or individual sex therapy or psychotherapy, when relevant. However, sexual side effects must be monitored, and this minimalistic strategy must be fully explained to the client.

Another approach might be to reduce the dose of the putatively offending

psychiatric medication. If dose reduction fails to alleviate the sexual symptoms, or if the primary psychiatric symptoms return, then the clinician might consider drug substitution from a different chemical class.

Combination therapy, with two psychotropic agents believed to produce antagonistic sexual side effects, might minimize the sexual side effect of each while maximizing the synergistic psychiatric effect. For instance, the coupling of trazodone—which has been reported to increase libido in women—and fluoxetine—which has been reported to decrease libido in women—might prove useful.

The selective utilization of psychopharmacologic agents not associated with sexual dysfunction may reduce the incidence of such iatrogenic morbidity. Specifically, no published report exists, as of this writing, linking bupropion or buspirone with sexual side effects. In fact, buspirone has been reported to reverse generalized sexual dysfunction related to anxiety (43).

Prescription of a medication used in treatment of endogenous sexual dysfunction might assist in returning the patient's sexual function to baseline. Yohimbine (44), naltrexone, and apomorphine can each allegedly elicit penile erections (45); it is unknown what influence they would exert upon women.

Addition of a second medication, aimed at addressing the psychotropic-induced sexual dysfunction, may have benefit. Several reports have implied that libido has been enhanced by the cholinergic agent bethanechol (46,47) and by the dopamine agonist bromocriptine (48). Several mixed-gender reports have suggested that anorgasmia induced by MAOIs (49), fluoxetine (50), and multicyclic antidepressants (29,26,51) might be reduced by the serotonin antagonist cyproheptadine. However, it is important to keep in mind that, just as primary psychiatric medications can elicit side effects, so can adjunctive medications. Cyproheptadine has been associated with anticholinergic crisis in conjunction with treatment of tricyclic-induced anorgasmia (29).

A helpful overarching strategy is to develop a solid, mutually trusting clinical relationship with each patient and to routinely obtain a complete sexual history before prescribing any psychotropic medications. Not only does the sexual information gathered establish a baseline against which to detect future changes in the patient's sexual function, but directly bringing the client's sexual history into the patient-practitioner interaction also increases the likelihood that the client will feel welcomed to discuss subjectively perceived changes in sexual function which may arise. Asking about specific practices, about partners and relationships, and about the importance of sexuality in the client's overall functioning will be more useful than simply querying broadly about sexual orientation, partnership status, age at puberty, or history of orgasm.

Practitioners' comfort discussing issues of client sexuality, practitioners' sexual knowledge, and practitioners' sex-positive attitudes are all responsible for obtaining thorough sexual histories and for eliciting, following up on, and for educating about psychotropic-induced sexual side effects. Sex-positive attitudes will also permit clinician-researchers to add to psychiatry's understanding of the possible insidious outcomes of prescribed medications. In the long run, psychiatric clients will benefit

directly from sex-positive attitudes, from openness to and empathy toward clients' sexual concerns, and from application of the most complete available data about sexual side effects.

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