Sexual Disorders

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PSYCHOSOCIAL ASPECTS of sexual behavior → see p. Psy1 >>

SEXUAL IDENTITY - ***biologic sexual characteristics*** (genitalia, hormonal composition, secondary sexual characteristics).

GENDER IDENTITY - subjective ***psychological sense*** of being masculine or feminine ("I am male" or "I am female"); set at age ≈ 3 yrs (end of toddler years - children become aware of anatomic differences between sexes).

GENDER ROLE - objective ***social behavior*** that allows others to categorize person as male or female; largely determined during preschool period (3-6 yrs of age).

SEXUAL ORIENTATION - ***erotic attraction*** felt toward persons or objects of particular type.
- social groups may be formed based on sexual orientation (e.g. homosexuals, sadomasochists).

LIBIDO - ***conscious component*** of sexual function.

- changes in gender role, relationships, and expressed sexual orientation may occur throughout life cycle!

EXAMINATION

HISTORY

Assessment of sexual functioning by physician should be routine part of complete medical evaluation (but often is not done because of anxiety or discomfort on part of physician).

media attention to sexual abuse by trusted care givers may cause some physicians to fear that questions about sex will be misperceived by patient

- only 10% patients initiate discussion of sexual functioning, but 50% will discuss it if asked.
- history is taken from both partners, interviewed separately as well as together.
- method that uses ***chronology of sexuality*** throughout life cycle is less threatening to patient (provides better understanding of sexual functioning, implies that sexuality is natural function).
- open-ended questions prefaced by educational comments are effective in encouraging patient.

  e.g. physician could say, "Most well-adjusted people expect to have some experience with sexual dysfunction in their lives. Could you tell me some of your own experiences with this?"
  In case of organic disorders, ask patient "Many patients experience changes in sexual functioning as result of this problem. How has it affected you?"
- accepted norms of sexual behavior & attitudes vary greatly within and among ***different cultures*** - health professionals should never be judgmental of sexual behaviors; accepted norms of sexual behavior and attitudes are influenced greatly by ***parents***.

  What is normal and abnormal cannot be defined by health professionals! If sexual behavior / difficulties bother patient or patient's partner or cause harm, then treatment is warranted.
- key questions:
  (a) first childhood awareness of sexuality (incl. attitudes and punishment)
  (b) problems with gender identity
  (c) first sexual experience (incl. masturbation)
  (d) age of and reaction to puberty (incl. menarche in women)
  (e) history of sexual abuse
  (f) patient knowledge about sex and how knowledge was acquired
  (g) first experience with sexual partner (incl. intercourse)
  (h) homosexual, sadomasochistic, and other experiences and interests

(i) current sexual functioning (incl. frequency and satisfaction)
(j) questions about extramarital partners (if patient is married).

PHYSICAL EXAM

- most important in diagnosis of sexual pain disorders.
- explore for potential organic causes (esp. neurologic, endocrine, peripheral vascular, urologic, and gynecologic).

PSYCHIATRIC EXAM

- mental disorders (esp. affective disorder, panic disorder, severe personality disorder, somatization disorder) require specific treatment before treatment can be applied to sexual problem!
- couple examination may suggest need for couples therapy.

LABORATORY

- **tests for STD** if required.
- screen for **substance abuse**.
- although low **estrogen / testosterone levels** may contribute to sexual dysfunction, measuring levels is *rarely indicated*.

"NORMAL" SEXUAL BEHAVIORS

MASTURBATION

- normal sexual activity (self-stimulation behavior) throughout life (97% males and 80% females masturbate).

Masturbation is harmless!

- once widely regarded as perversion and cause of mental disorders.
- guilt created by disapproval and punitive attitudes → considerable distress → impaired sexual performance.
- considered abnormal only when it *inhibits partner-oriented behavior*, is performed *in public*, or is sufficiently *compulsive* to cause distress.

CHILDHOOD MASTURBATION (involves genital manipulation and fondling) - universal behavior, not disease, that occurs in all children (can develop before age of 1 year).

- ***continuous masturbation*** may be sign of severe understimulation, environmental deprivation, excessive sexual stimulation or sexual abuse.
- ask about **other signs of self-stimulation** (e.g. rocking, head banging, hair pulling) → enroll child in stimulation program.
- masturbatory activity in **female infants at 2 mo ÷ 3 yrs**:
  - sudden onset, persists for few minutes (rarely hours), occurs during periods of stress or boredom.
  - repetitive stereotyped episodes of tonic posturing associated with copulatory movements, but without manual stimulation of genitalia; child suddenly becomes flushed and perspires, may grunt and breathe irregularly, but there is no loss of consciousness.
  - search for evidence of sexual abuse or perineum abnormalities.
  - treatment - reassurance that self-stimulatory activity will subside by 3 yrs.

HOMOSEXUALITY

- issue of sexual orientation (vs. **TRANSSEXUALISM** - issue of gender identity).

- normal variation of sexual behavior and not mental disorder (classification systems before DSM-III included homosexuality as mental disorder).
- 4% men and 1-3% women identify themselves as exclusively homosexual for their entire lives.
- like heterosexuality, homosexuality results from ***complex biologic and environmental factors***;
  - twin studies show higher concordance for monozygotic twins (far short of 100%) - presence of genetic & nongenetic factors.
  - ***third interstitial nucleus of anterior hypothalamus*** is smaller in both homosexual men and heterosexual women than it is in heterosexual men.
  - ***psychosocial theory*** - influence of family constellation that consists of dominant mother and weak or rejecting father.
  - early reports of *higher testosterone levels* in heterosexuals have not been proved (finding may have resulted from higher marijuana use by homosexual men in sample).
- homosexual experimentation may occur during adolescence and is not indicative of sexual orientation.
- development of homosexual relationships (commonly in adolescence) may be associated with *great emotional turmoil* that is generated by psychological conflict (may mimic personality disorder, but may be distinguished by its transience).
- like heterosexuality, homosexuality is not matter of choice.
- homosexuals may *feel alienated* from dominant culture, culture of origin, and family → often affiliate with homosexual community (where they find acceptance).

PROMISCUITY / HYPERSEXUALITY

- frequent sexual activity with many partners due to vigorous sexual drive.

Not in itself evidence of psychosexual disorder! (although may indicate diminished capacity for intimacy); considered pathological if is pursued at inappropriate times and with unwilling partners.

- often involves anonymous or one-time-only encounters.
- casual sex is common (fear of AIDS has resulted in decrease).
- most cultures discourage extramarital sexuality but accept premarital or nonmarital sexual activity as normal; ***extramarital sex*** occurs frequently despite social taboos.
- children exposed to verbal and physical hostility / rejection / cruelty → ***love and sexual arousal may become dissociated*** → emotional bonds can be formed with people from same social class or intellectual circle, but sexual relationships can be formed only with those considered inferior, such as prostitutes, with whom there is no emotional intimacy.
- organic causes - treatment with dopaminergic agents, hypothalamic or frontal lobe or medial temporal lobe lesions, Klüver-Bucy syndrome.

SEXUAL DYSFUNCTION

- disturbances in sexual response cycle or pain associated with sexual arousal or intercourse

- **psychogenic** and **organic** factors have been implicated.
- most types of dysfunction have both *male* and *female* analogs.
- disorders probably apply equally to heterosexual and same-sex relationships.
- features:

a) ***lifelong*** (no effective performance ever, generally due to intrapsychic conflicts) or ***acquired*** (after period of normal function).
b) ***generalized*** or ***situational*** (limited to certain situations / partners / types of stimulation).
c) ***total*** or ***partial***.

- disorder is diagnosed only when symptoms cause distress or interpersonal difficulty (most patients complain of anxiety, guilt, shame, frustration, and many develop physical symptoms).
  - some women may not be distressed or bothered.
- although dysfunction usually occurs during sexual activity with partner, inquiry about function during masturbation is useful (if it is unaffected, cause may be interpersonal factors!).

Classified according to phase of sexual response cycle. see p. 2533a >>

- MALE sexual dysfunction is problem with 1 of 4 main components:
  a) libido
  b) erection
  c) ejaculation
  d) orgasm
- FEMALE sexual response cycle is strongly influenced by quality of relationship with her partner (emotional intimacy is normal requirement for female sexual response!*).
  - almost all women with sexual dysfunction have features of more than one disorder.

*women need to remind their partner of their need for nonphysical, physical nongenital, and nonintercourse genital stimulation

GENERAL TREATMENT

Before work of Masters and Johnson in 1970s, sexual dysfunction was regarded primarily as symptom of underlying individual psychopathology. Currently, sexual problem, although understood as being frequently related to deep-rooted psychological conflicts, is considered autonomous symptom that may respond well to intervention that addresses problem directly.

- treat **physical disorders** (e.g. medications that may increase or decrease sexual response, injectable vasoactive substances that produce erection, surgical prosthetic devices that simulate erection).
- patient with lifelong disorder should be referred to ***psychiatrist***.
- when **psychologic factors** predominate, counseling to remove causes helps; usually both partners should attend; *individual*, *couple* or *group* psychotherapy is sometimes useful.
  - flexible, short-term approach is favored!
  - there is assumption that both members of couple are responsible for their sexual relationship!
  - to combat myths that may interfere with realistic understanding of relevant problems, couples are given information about basic physiology and psychology of sexual functioning.

Educational technique may be among most effective available treatments! Woman should understand function of her sexual organs and her responses (incl. best methods of stimulating clitoris and enhancing vaginal sensations).

some patients may not know that most women cannot have orgasm without some clitoral stimulation; in some women, sexual positions that pull down on labia minora can provide strong, indirect stimulation of clitoris; woman is encouraged to educate her partner about activities that she finds stimulating.

  - ***hypnotic suggestions*** may be aimed at altering unconscious thought process when it occurs during sexual activity.
  - **MASTERS AND JOHNSON 3-STAGE SENSATE FOCUS EXERCISES** (type of **behavioral therapy**, esp. useful for disorders that affect excitement phase) - helps couple become more aware of their sensory responsiveness; exercises begin with nongenital stimulation and lead stepwise to genital stimulation →→→ nondemanding coitus; couples is encouraged to heighten awareness of basic sensations of touch, sight, smell, and hearing during exercises.

e.g. for men with erectile dysfunction, prohibition of intercourse during sensate focus sessions removes anxiety and allows patient feeling of success in enjoying arousal.

- most physicians use **combined educational and behavioral technique** - **P-LI-SS-IT model**:
  Permission (P) – physician's relaxed manner and interest facilitates discussion of sexual concerns; physician's authority contributes to approach effectiveness.
  Limited information (LI) – many cases of sexual dysfunction result from lack of information or misinformation about sex.
  Specific suggestions (SS) – couple is taught sensate focusing exercises.
  Intensive therapy (IT) – for patients who do not respond to basic therapy described above (there usually is associated psychopathology) – psychotherapy.
- **Kegel's exercises** strengthen voluntary control of *pubococcygeus muscle* - muscle is contracted 10-15 times tid (in 2-3 mo, perivaginal muscle tone improves, as does woman's sense of control and quality of orgasm).
- in some cases of sexual dysfunction, clinician may take advantage of direct or secondary effect of medication:
  Estrogen replacement (oral and topical) - for inadequate lubrication & vaginal epithelium atrophy (causing dyspareunia), symptoms associated with menopause.
  Testosterone (widely prescribed in USA, for both men and women) - increases sexual interest and functioning in *testosterone-deficient* men and in women.
  Sildenafil, yohimbine - for erectile dysfunction in men.
  LHRH (s. **GnRH**) in pulsatile doses stimulates ovulation in women and testosterone production in men.
  Dopaminergic medications (bupropion, L-dopa, bromocriptine) - improve both sexual drive and performance in men and women, but increase ejaculation speed.
  Dopamine-blocking medications (e.g. neuroleptics) increase time to achieve ejaculation.
  Serotonergic medications decrease sexual interest and increase time to ejaculation.
  Phenylethylamine (found in chocolate) has sexually stimulating effects in rat; precise effects in humans are unknown.

Disorders affecting APPETITIVE PHASE

HYPOACTIVE SEXUAL DESIRE DISORDER

- (relative or absolute) lack of desire and fantasy regarding sexual activity, i.e. decreased libido greater than what might be expected based on age, life circumstances, and relationship duration.

Sexual anhedonia (decreased or absent pleasure in sexual activity) is not official diagnosis; classified under hypoactive sexual desire disorder, because loss of pleasure almost always results in loss of desire (although loss of desire may occur first).

- causes infrequent sexual activity → marked distress or interpersonal difficulties (e.g. serious marital conflict).
  - some patients have sexual encounters fairly often to please their partners and may have no difficulty with performance but continue to have sexual apathy.
- prevalence - 20% **women** (most common type of sexual dysfunction in women!!!), 10% **men**.
  - female sexual desire lessens with age* but increases with new partner at any age.

*relative lack of partners, untreated physiologic changes (e.g. atrophy of vaginal mucosa → dryness and painful coitus).

Etiology (most commonly cause global deficiency of desire):

- sexual desire is complex psychosomatic process based on brain activity ("generator" running in rheostatic cyclic fashion), poorly defined hormonal milieu, and cognitive scripting that includes sexual aspiration and motivation.
- desynchronization of these components results in hypoactive sexual desire disorder.
- sexual desire is sensitive to testosterone levels, general nutrition, health, and drugs!

1) hypogonadism (testosterone < 300 ng/dL in male and < 10 ng/dL in female are considered potential causes); H: IM testosterone
   N.B. testosterone alone is not sufficient (correcting low levels may not correct generalized hypoactive sexual desire disorder)
2) general physical illness (esp. uremia, terminal illness, endocrinopathies)
3) side effects of medications:
   a) weak androgen receptor antagonists (spironolactone, cimetidine)
   b) virtually all drugs that are active in CNS (both increase and decrease in libido have been reported with psychoactive agents);
      - benzodiazepines can decrease libido, but in some patients, diminution of anxiety caused by those drugs enhances sexual function.
      - between antidepressants, SSRIs contribute most to sexual dysfunction!
4) major depression, panic disorder, somatization disorder, marital difficulties (may include sexual satiation outside of marriage).
5) *boredom* or unhappiness in long-standing relationship (sexual desire may be normal or even intense with others - **situational form**).
6) *traumatic events* in childhood or adolescence.
7) *secondary* to impaired arousal or orgasm phases.
8) **Gastaut-Geschwind syndrome** (interictal syndrome in temporal lobe epilepsy) - hyposexuality associated with hypergraphia, hyper-religiosity, irritability, and elation; patients may also demonstrate "viscosity" (stickiness of thought processes and interpersonal adhesiveness, and circumstantiality - difficulty in terminating conversations).

Sexual aversion disorder

- extreme avoidance of sexual activity (rather than simple lack of desire), i.e. genital sexual contact with partner.

- females > males.
- associated with anxiety, fear, disgust in sexual situations - causes marked distress or interpersonal difficulty.
- related to phobia (may be associated with actual panic attacks).
- patient may have history of sexual trauma (incest, sexual abuse, rape).
- may stem from initial attempts at intercourse that resulted in moderate to severe dyspareunia (even after dyspareunia disappeared, painful memories may persist).
- may occur in persons who attempt to or are expected to have sexual relations incongruent with their sexual orientation.
- treatment - **psychotherapy** (behavioral, psychodynamic, marital).

Disorders affecting EXCITEMENT (AROUSAL) PHASE

Male erectile disorder (Impotence)

- see p. 2594 >>

N.B. *delay in attaining erection* and *decreased fullness of erection* are normal with aging and do not lead to impotence!

Female sexual arousal disorder

- impaired secretion of lubricant fluid and impaired swelling of vaginal tissues during sexual activity.

- not as well understood as male erectile disorder.
- intercourse is painful, although sexual desire is preserved (patient avoids sex due to dyspareunia) - sexual arousal disorder almost invariably leads to ORGASMIC DISORDER.
- patient usually complains of lack of orgasm, although some women say, "I don't get turned on".

Etiology:

1) deficiency of estrogen (in menopause)
   N.B. both estrogens and androgens influence arousal!
2) ignorance of genital anatomy and function (particularly clitoral function)
3) often decreased sexual desire precedes decreased sexual arousal (hypoactive sexual desire disorder is primary diagnosis here!)
4) localized disorders (e.g. endometriosis, cystitis, vaginitis), systemic disorders (e.g. hypothyroidism, diabetes mellitus), nervous disorders (e.g. MS), muscular disorders (e.g. muscular dystrophy), drugs (e.g. oral contraceptives, antihypertensives, antidepressants), ablative surgery which negatively affects woman's sexual self-image (e.g. hysterectomy, mastectomy).

Classification:

Subjective sexual arousal disorder - subjective arousal in response to any type of sexual stimulation (e.g. kissing, dancing, watching erotic video, genital stimulation) is absent, but genital arousal (genital congestion) is normal.

Combined sexual arousal disorder - subjective arousal in response to any type of sexual stimulation is absent, and women report absent physical genital arousal.

Genital arousal disorder - subjective arousal in response to ***nongenital stimulation*** (e.g. erotic video) is normal, but subjective arousal, genital arousal, and sexual sensations in response to ***genital stimulation*** (including intercourse) are absent; typically affects postmenopausal women (often described as "genital deadness");

H: local **estrogen** (for refractory cases - try **phosphodiesterase inhibitor**; investigational therapy - 0.2 mL topical 2% TESTOSTERONE applied to clitoris).

Disorders affecting ORGASMIC PHASE

Inhibited female orgasm

- diagnosed only when there is no difficulty with arousal (excitement).
- *most severe form* - absolute inability to have orgasm (10% women never attain orgasm!)
- *milder form* - dissatisfaction with need for adjunctive clitoral stimulation during coitus to attain orgasm.
  - most women attain orgasm with clitoral stimulation, but only 50% women regularly attain orgasm during coitus.
- **psychological** and **biologic** factors may be responsible (usually linked to difficulty in developing sufficient arousal).
  - lovemaking that consistently ends before aroused woman reaches climax (e.g. due to inadequate foreplay, ignorance of clitoral/vaginal anatomy and function, premature ejaculation) may result in dysfunction or even sexual aversion.
  - drugs (esp. SSRIs) may inhibit orgasm.
  - depression is leading cause of decreased sexual arousal and orgasm.
- treatment - encourage self-stimulation (e.g. place vibrator on mons close to clitoris), **phosphodiesterase inhibitors** may be tried for acquired disorder with autonomic nerve damage.

INHIBITED MALE ORGASM

- analogous to female condition, but is less common.

- causes may be decreased penile sensation (e.g. from neuropathy), psychiatric disorders (esp. depression), psychoactive drugs.

PREMATURE EJACULATION

- ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before man wishes it.

- affects 30% men.
- usually ***partner-related*** (most men can delay orgasm during masturbation for much longer than they can during coitus).
- etiology (comprised control that is necessary for optimal timing of ejaculation):
  1) anxiety
  2) lack of experience
  3) lack of familiarity with partner
  4) sexual overstimulation.
- treatment – **psychotherapy**, small doses of **SSRI** 1-2 h before sexual encounter (SSRIs delay or inhibit ejaculation), **squeeze method** and **stop-start technique**.

SEXUAL PAIN DISORDERS

DYSPAREUNIA

- genital pain associated with sexual intercourse.

- women >> men.
- etiology:
  1) psychological issues (cause of true "dyspareunia")
  2) general medical conditions that affect pelvic tissues (infection, surgical scarring)
  3) male etiology - pain of vascular origin (related to inhibited male orgasm), spasm of perineal musculature during ejaculation, prostatitis.
- ***pelvic muscle hypertonicity*** (voluntary guarding) is common in all types of chronic dyspareunia.
- pain may occur:
  a) at moment of penetration (superficial/introital) – most common!
     most common cause - **vulvar vestibulitis (localized vulvar dysesthesia)** - nervous system, from peripheral receptors to cerebral cortex, is sensitized and remodeled for unknown reasons - trivial stimulus (e.g. touch with cotton swab) is perceived as significant pain (allodynia); pain stops when penile movement stops and resumes when it starts again (vs. vaginismus); may leave postcoital vulvar burning and dysuria; treatment - tricyclic antidepressants, anticonvulsants, topical drugs (e.g. 2% cromoglycate or 2-5% lidocaine), avoid topical irritants.
     other causes - atrophic vaginitis*, vulvar disorders (e.g. lichen sclerosus, vulvar dystrophies), congenital malformations, radiation fibrosis, postsurgical introital narrowing, recurrent tearing of posterior fourchette*; H: liberal use of water-soluble lubricant just before coitus.
     *topical estrogen is helpful
  b) with deeper entry; **causes** - pelvic muscle hypertonicity (H: biofeedback to teach pelvic muscle relaxation), pelvic / uterine / ovarian disorders (e.g. fibroids, endometriosis); penile size and penetration depth influence presence and severity of symptoms; diagnosis requires bimanual and rectal examination.
  c) with penile movement
  d) postcoitally

VAGINISMUS

- recurrent involuntary (reflexive) spasm of muscles that surround outer portion of vagina that interferes with sexual intercourse, i.e. tightening around vagina when vaginal entry is attempted despite woman's expressed desire for penetration.

- etiology - medical conditions (causing dyspareunia), psychological association of sexual penetration with fears related to aggression (this association may be unconscious desire to prevent penetration, and patient may have normal sexual desire).
  N.B. vaginismus is learned response!
- pain continues when penile movement stops but may progressively fade during intercourse despite continued penile movement (vs. dyspareunia).
- may cause *SEXUAL AVERSION DISORDER*.
- ***vaginal spasm during pelvic examination*** confirms diagnosis.
- treatment - **behavioral with incremental graduated dilation** - neutral self-touch remote from introitus and moving slowly toward it, to reduce fear of subsequent pain:
  – woman is encouraged to *touch* herself daily as close to introitus as possible, separating labia with her fingers.
  – once fear and anxiety from introital self-touch has diminished, she can *insert finger* past hymen, pushing or bearing down to ease finger entry.
  – if finger insertion causes no discomfort, *vaginal cones* graded in size are prescribed for progressive insertion (allow perivaginal muscles to become accustomed to gently increasing pressure without reflex contraction).
  – ultimately, woman can *insert partner's penis*, holding it like insert.

SEXUAL DYSFUNCTION DUE TO GENERAL MEDICAL CONDITION

- sexual dysfunction fully explained by direct physiologic effects of general medical condition (and not better accounted for by mental disorder).

- dysfunction is usually generalized.
- may account for > 50% certain sexual dysfunctions (such as impotence in men).

MYOCARDIAL INFARCTION

- often results in decreased self-esteem of patient, concerns about impotence, and decrease in frequency of sexual intercourse.
  Decrease in frequency is most commonly due to psychological factors!
- patients without medical complications may resume sexual activity 6 weeks after MI.
- patients with cardiovascular disease may experience symptoms (e.g. chest pain, shortness of breath) during intercourse; MI occasionally occurs during intercourse.

CHRONIC ILLNESS

- **decreased patient's self-esteem**, **sick role** place patient in dependent position that may lead to regressive behavior.
- **malaise, anxiety,** and **depression** interfere with physiologic functioning.
- ***sexual roles often are altered*** - healthier partner assumes more nurturing role.
- most common causes of sexual dysfunction (conditions causing fatigue or debility):
  1. **Chronic renal failure**
  2. **Diabetes mellitus**; cause of impotence is often organic, but psychological causes (e.g. impaired self-esteem, fear of impotence) should also be considered.

3. **Vascular disease** may be primary factor contributing to sexual dysfunction that occurs with aging.

SUBSTANCE-INDUCED SEXUAL DYSFUNCTION

- sexual dysfunction fully explained by substance use (during or within month of substance intoxication).

- any phase of sexual response cycle, except resolution, may be impaired.

Alcohol

- small amounts enhance sexual desire by decreasing inhibitions.
- large amounts cause significant dysfunction in both men and women.
  - alcohol is CNS depressant (→ erectile dysfunction, orgasmic disorders that resolve when patient is not intoxicated).
  - diseases related to alcoholism (e.g. hypertension, cirrhosis, neuropathy, testicular atrophy).
  - psychological disorders exacerbated by alcohol abuse.
- **chronic alcohol abuse** causes irreversible sexual dysfunction in some individuals:
  women - inhibited desire, dyspareunia, orgasmic dysfunction.
  men - inhibited desire, erectile dysfunction, delayed orgasm or ejaculation.

Drugs of abuse

- often used initially to enhance sexuality.
- **marijuana (cannabis)** - decreased libido, impaired potency, decreased plasma testosterone levels, sperm count, and sperm motility.
- **cocaine / amphetamines** increase physical performance initially; **chronic use** (depletion of CNS dopamine stores) decreases sexual functioning and interest.
- **narcotic addiction** causes nonemissive erections and impotence in men and amenorrhea, infertility, reduced libido, and spontaneous abortions in women.
- **barbiturates** lower sexual inhibition; larger doses depress sexual performance.

Prescription drugs

- antiadrenergic **antihypertensives**.
- **antidepressants** (TCA, MAOI, SSRI!!!).
- **antihistamines** because of anticholinergic effects.
- **neuroleptics** → decrease sexual interest, erectile dysfunction, retarded ejaculation.
- **sedative-hypnotics** in small doses improve sexual functioning in anxious individuals; chronic use causes impaired performance (several benzodiazepines interfere with ejaculation).
- **antiandrogenic drugs** (steroids, estrogens, spironolactone).
  - oral estrogen and oral contraceptives increase sex hormone–binding globulin (SHBG), decreasing amount of free androgen available for tissue receptor binding.

PARAPHILIAS

- recurrent, intense, sexually arousing behavior / urges / fantasies characterized by:

a) preference for nonhuman objects (fetishism, zoophilia)

b) activities that involve suffering or humiliation (sexual sadism, sexual masochism)

c) sexual activity with nonconsenting partners (pedophilia, voyeurism, frotteurism, exhibitionism)

- cause clinically significant distress or impairment functioning (in social, occupational, or other important areas).
- often become obligatory for sexual functioning (i.e. erection or orgasm cannot occur without stimulus).
- according to *DSM-IV,* diagnosis requires at least 6-month duration of either ***repetitive behaviors*** or significant distress associated with deviant ***sexual fantasies***.
- almost always occur in **males**.
- most common are pedophilia, voyeurism, and exhibitionism.
- only small subset break law and become sex offenders.

Exhibitionism

- exposure of genitals to unsuspecting stranger; may also refer to strong desire to be observed by others during sexual activity.

- exhibitionist may masturbate while exposing himself.
- victim is almost always female adult or child of either sex.
- actual sexual contact is almost never sought.
- age at onset - mid 20s (occasionally, first act occurs during preadolescence or middle age).
- 30% apprehended male sex offenders are exhibitionists.
- highest recidivism rate of all sex offenders (20-50% are re-arrested).
- most exhibitionists are married, but marriage is often troubled by poor social and sexual adjustment.
- very few females are diagnosed as exhibitionists, although society sanctions some exhibitionistic behaviors in females (through media and entertainment venues).

Variant - strong desire to have consenting audience watch their sexual acts.

- such people may make pornographic films or become adult entertainers.

Fetishism

- use of nonliving / inanimate objects (e.g. female undergarments).

- in common parlance, used to describe particular sexual interests (such as sexual role-playing), preference for certain physical characteristics, and preferred sexual activities.
- *minor fetishistic behavior* as adjunct to consensual sexual behavior is not considered disorder (because distress, disability, and significant dysfunction are absent).

Transvestic fetishism - cross-dressing of heterosexual male; behavior begins in late childhood.

- when partners are cooperative, these men have intercourse in partial or full feminine attire.

Transvestic fetishism with gender dysphoria - if man has persistent discomfort with gender role or identity.

Voyeurism

- observing unsuspecting person who is naked, in process of disrobing, or engaging in sexual activity.

- desire to watch others in sexual situations is common and not in itself abnormal; when pathologic, voyeurs spend considerable time seeking out viewing opportunities.
- orgasm is usually achieved by masturbating during or after voyeuristic activity.
- voyeur does not seek sexual contact.

Frotteurism

- touching and rubbing against nonconsenting person.

PEDOPHILIA

- sexual activity with prepubertal children (generally ≤ 13 years of age).
- pedophile is at least 16 years of age and at least 5 years older than child.
- types - exclusive (attracted only to children), nonexclusive.
- subtypes:
  - (1) sexually attracted to females only
  - (2) sexually attracted to males only
  - (3) sexually attracted to both sexes
  - (4) limited to incest
- pedophiles prefer opposite-sex to same-sex children 2:1.
- looking or touching seems more prevalent than genital contact.
- often leads to imprisonment.
- **predatory pedophiles** (many have antisocial personality disorder) use force and threaten to physically harm child or child's pets if abuse is disclosed.
- course of pedophilia is chronic; perpetrators often develop substance abuse or dependence, depression, and marital conflict.
- identifying pedophile often poses ethical crisis for physician (physician can try to protect privacy of patient but must protect community of children).
- treatment - **antiandrogens**.

SEXUAL MASOCHISM

- intentional participation in activity (real, not simulated) in which one is humiliated, beaten, bound, or otherwise abused to experience sexual excitement.
- sadomasochistic fantasies / behavior between consenting adults is very common - humiliation and beating are simply acted out in fantasy, with participants knowing that it is game and carefully avoiding actual humiliation or injury.
- real masochists increase severity of their activity with time → serious injury or death.
- patient may act on their masochistic fantasies themselves (e.g. binding themselves, piercing their skin, applying electrical shocks, burning themselves) or seek out sadist partner.
- activities with partner include: bondage, blindfolding, spanking, flagellation, humiliation by means of urination or defecation on person, forced cross-dressing, or simulated rape.

SEXUAL SADISM

- acts (real, not simulated) in which psychological or physical suffering (including humiliation) of victim is sexually exciting to person with this disorder.
- mild sadism is common sexual practice.
- sexual sadism is not rape (sexual sadism is diagnosed in < 10% rapists) - most sadistic sexual behavior occurs between consenting adults.
- when practiced with nonconsenting partners, sexual sadism constitutes criminal activity and is likely to continue until sadist is apprehended.
- sexual sadism is particularly dangerous when associated with antisocial personality disorder.

PARAPHILIA NOT OTHERWISE SPECIFIED

- examples:
  - **Telephone scatologia** – obscene phone calls
  - **Necrophilia** – corpses
  - **Zoophilia** – animals.

ETIOLOGY

- PSYCHODYNAMIC processes (often before puberty):
  a) anxiety or early emotional trauma interferes with normal psychosexual development.
  b) standard pattern of arousal is replaced by another, sometimes through early exposure to highly charged sexual experiences that reinforce person's experience of sexual pleasure.
  c) pattern of sexual arousal acquires symbolic and conditioning elements (e.g. fetish symbolizes object of arousal but may have been chosen because fetish was accidentally associated with sexual curiosity, desire, and excitement).

DIAGNOSIS

- **penile plethysmometry** during exposure to paraphilic stimuli; negative test result is not definitive finding!

TREATMENT

Psychotherapy with strong emphasis on BEHAVIORAL TECHNIQUES*.
– major component of treatment - **aversive conditioning** - ***pairing unpleasant associations with sexual fantasies*** (incl. facing applicable legal consequences).
– positive results first reported from these techniques tend to be only temporary.
– patients often have serious patterns of denial that complicates treatment.
– almost all patients lack appropriate social skills - **group therapy** often is included to teach social skills.

*PSYCHODYNAMIC and PSYCHOANALYTIC approaches do not seem to provide significant results

Pharmacologic treatments - reduce sexual drive rather than alter patient's focus of sexual interest (i.e. drugs are most effective in hypersexual patients):
1) **SSRI**!!! (e.g. high-dose FLUOXETINE 60-80 mg once/day or FLUVOXAMINE 200-300 mg once/day)
2) **progestins** (e.g. IM MEDROXYPROGESTERONE)
3) **antiandrogens** (e.g. CYPROTERONE).
4) **GnRH agents** IM (e.g. LEUPROLIDE, GOSERELIN).

– serum testosterone should be monitored and maintained in normal female range (< 62 ng/dL).
– treatment is long-term (deviant fantasies recur weeks ÷ months after discontinuation of treatment).

PROGNOSIS

- factors of **poor prognosis**:
  1) poorly integrated or deficient sense of guilt
  2) early onset
  3) high frequency of paraphilic acts.

GENDER IDENTITY DISORDERS

- persistent distress about one's assigned gender (i.e. strong cross-gender identification, s. incongruity between anatomic sex and gender identity).
- differentiate from *TRANSVESTISM* (paraphilia, because associated with strong sexual urges).

- not associated with *PHYSICAL INTERSEX CONDITION* (i.e. inconsistency between genitalia and chromosomal makeup).
- associated with various degrees of preoccupation with or modeling of stereotypical behaviors of opposite sex:
    (1) insisting that one is of other sex
    (2) cross-dressing
    (3) preferring opposite-sex roles in play
    (4) having intense desire to play games stereotypical of opposite sex
    (5) during childhood, strongly preferring playmates of other sex
    (6) during adolescence and adulthood, having conviction that one has feelings typical of other sex
    (7) frequently passing for other sex
    (8) believing that he or she was born wrong sex (victim of biologic accident → cruelly imprisoned in body incompatible with subjective gender identity).
    (9) preoccupation with getting rid of primary and secondary sex characteristics (negative feelings toward own genitals).
    (10) stating desire to be of other sex.

TRANSSEXUALISM (most extreme form of gender identity disorder) is *persistent preoccupation with becoming member of opposite sex*.

ETIOLOGY

- although **biologic factors** (genetic complement, prenatal hormonal milieu) largely determine gender identity, formation of unconflicted gender identity is influenced by **social factors** (such as character of parents' emotional bond and relationship that each of them has with child).
- childhood gender identity problems are usually present by age 2 yrs (most are not evaluated until they are age 6-9 yrs, at point when disorder is already chronic).
- most children with gender identity disorder do not develop into adults with transsexualism (but many are homosexual or bisexual).

TREATMENT

- aimed to help patient adapt rather than to dissuade from identity.

N.B. labeling condition as "disorder" can add to distress!

A. **Surgical - hormonal reassignment of gender** - indicated for patients with stable, long-term dissatisfaction with their assigned gender (i.e. transsexuals).
   - patient (before surgery) must meet criteria established by Harry Benjamin International Gender Dysphoria Association and have lived in desired gender role for at least 1 yr.
   - **male-to-female reconstruction** surgery is performed 4 times more often than female-to-male reconstruction.
   - many patients adapt well after surgery.
   - anatomic results of neophallus are often less satisfactory than neovaginal procedures (esp. extending urethra into neophallus).
   - patients with concurrent psychiatric disorders (e.g. borderline personality disorder) risk suicide when they discover that surgery does not solve all of their problems.
   - before surgery, patients need ***assistance with "passing" in public*** (incl. gestures, voice modulation).
   - more stable adjustment is increased by taking moderate doses of feminizing / masculinizing hormone (e.g. ethinyl estradiol / testosterone).

B. **Psychotherapy** (behavioral or insight-oriented) - to help cope with orientation.
   - little evidence that psychiatric interventions can reverse established patterns of gender dysphoria in people with primary gender-identity disorder.

Premenstrual Dysphoric Disorder (DSM-IV), Premenstrual Syndrome (PMS), Late Luteal Phase Dysphoric Disorder (DSM-III-R)

- cyclical physical / psychological symptoms that **begin week prior to menstruation** and **resolve shortly after onset of menstrual flow**; symptom severity impairs functioning.

No longer official diagnosis - researchers question whether it is distinct entity, cultural belief pattern, or artifact of other disorders (esp. affective disorders).

- to make diagnosis, symptoms must be ***charted prospectively*** (retrospective reports have been shown to be invalid) - 80% women who complain of PMS do not meet criteria when prospective charting is used.

Symptoms
1. Psychological complaints: tension, irritability, depression, anxiety, affective lability, food cravings, concentration difficulty, lethargy.
2. Physical complaints: breast tenderness, weight gain, bloating, fatigue.

Etiology
- theories about estrogen - progesterone imbalance have not been validated.
- effect of **female gonadal hormones** on CNS monoamine activity (particularly serotonin).
- **thyroid abnormalities** have been noted.
- **endorphin** activity may be altered by menstrual cycle.
- **aldosterone** levels may be elevated → water retention.
- **prostaglandin** levels may be elevated → water retention, pain, dysphoria.

Treatment
- various empirical approaches:
  a. **diet** - regular, small meals low in sodium, sugar, caffeine, alcohol.
  b. regular **physical exercise** reduces tension and stress.
  c. **medications**:
    1) **SSRI** – specifically beneficial effects on PMS!!!
    2) **antianxiety medication** – for tension and irritability.
    3) **bromocriptine** – for breast tenderness.
    4) **diuretics** – for weight gain and edema.
    5) **prostaglandin inhibitors** – for dysmenorrhea.
    6) **ovulation suppressants** (e.g. oral contraceptives) are useful for some patients.
    7) unclear efficacy - ***progesterone*** suppositories (were popular treatment for PMS), ***vit. B_6*** and ***magnesium*** supplementation.

BIBLIOGRAPHY for ch. "Psychiatry" → follow this LINK >>

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