Sexual Dysfunction and Mental Health Matters

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Disclosures

- I have no pertinent financial disclosure to this topic

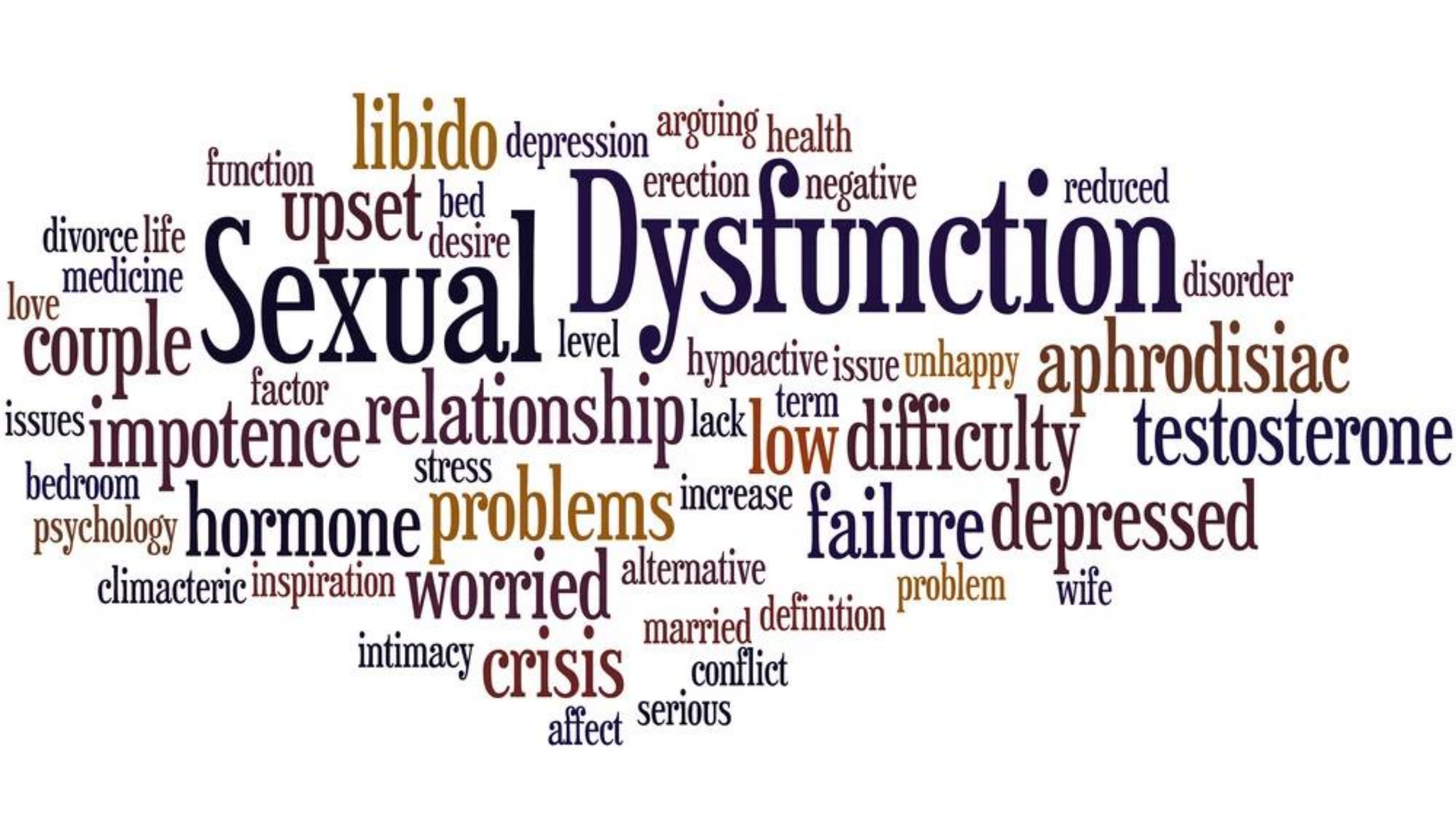
Objectives

- Review sexual function / dysfunction
- Impact of sexual function on mental health
- Impact of mental health on sexual function
- Multi-disciplinary treatment approaches
- Discussion

What is healthy sexual function?

”Being able to experience sexual pleasure and satisfaction when desired”

- American Society of Sexual Function


libido
depression
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Sexual
Dysfunction
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bedroom
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psychology
hormone
alternative
climacteric
inspiration
worried
problem
wife
married
definition
intimacy
crisis
conflict
affect
serious

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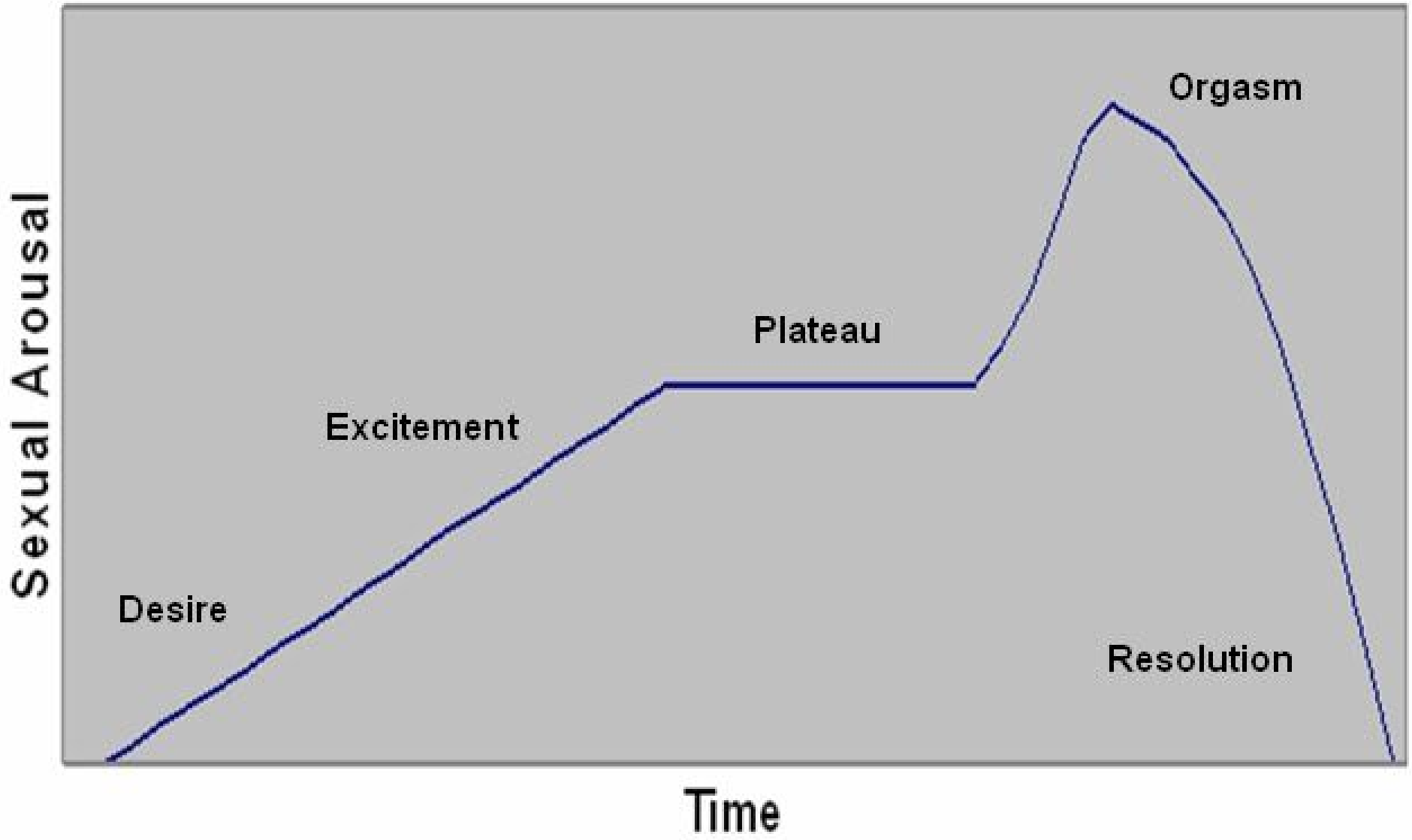
Sexual Response Cycle



Desire

- Libido; sexual attraction; ‘sex drive’
- An interest in sexual objects or activities
- Circumstantial
- Varies from person to person

Excitement

- Can last minutes to hours
- Increase blood flow to genitals;
- nipples hard / erect
- vaginal lubrication
- Skin flushing

Plateau

- Extends to the brink of orgasm
- Excitement changes intensified
- Vaginal swelling
- Clitoral sensitivity
- Erection rigidity
- Muscle tension and spasms

orgasm

- Peak of sexual pleasure
- Release of sexual tension
- Rhythmic contraction of perineal muscles and reproductive organs
- Men: Ejaculation; rhythmic contraction of prostate and SV
- Women: Rhythmic contraction of lower third of vagina, and uterus

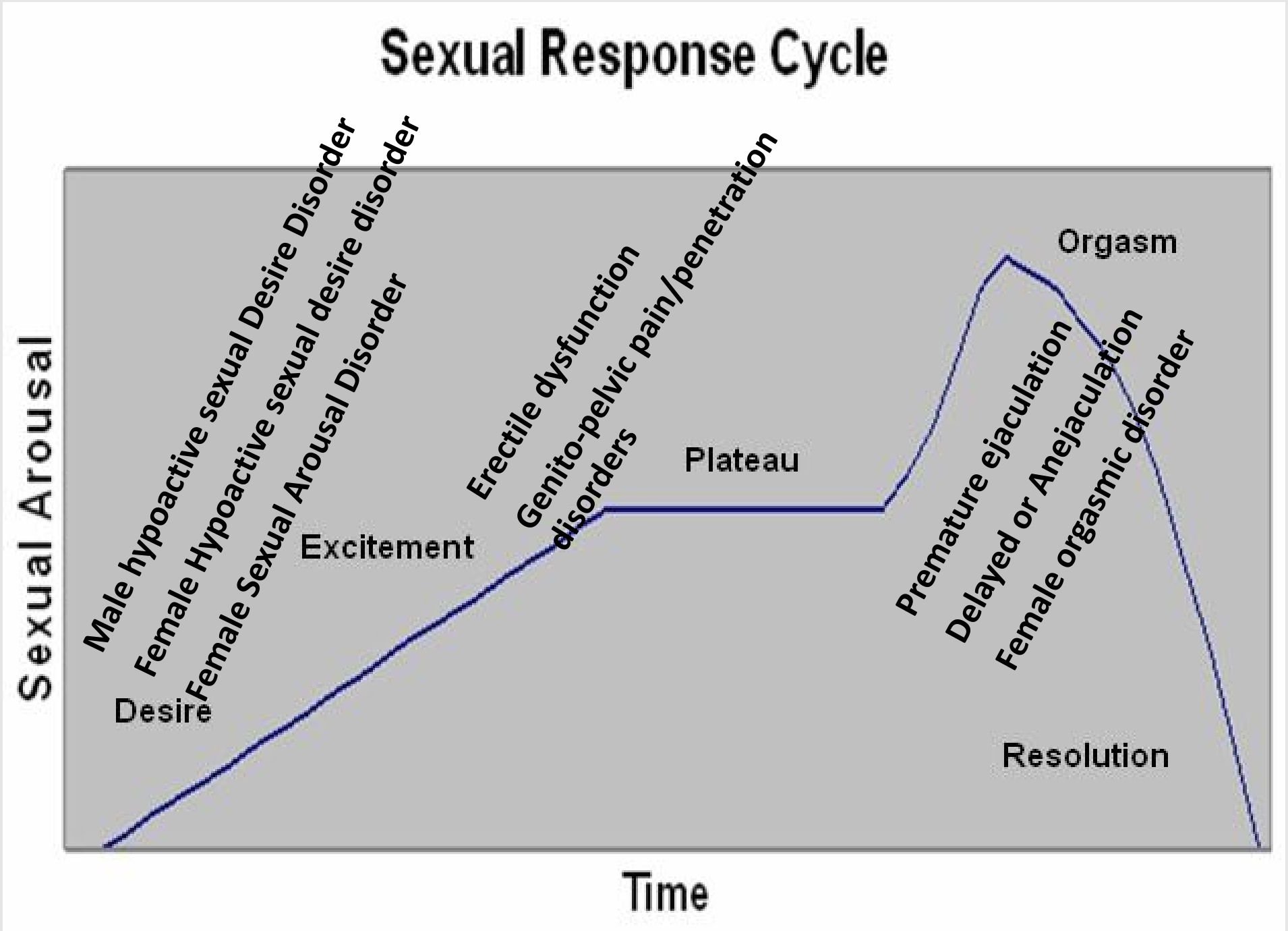
Resolution

- Body back to resting state
- After orgasm – rapid resolution
- No orgasm – can take 2-6 hours; irritability; discomfort
- Male refractory period; No female refractory period

Types of Sexual Dysfunctions

DSM proposes four categories

Sexual desire disorders	Sexual arousal disorders	Orgasmic disorders	Sexual pain disorders
• Lack of interest in sex or aversion to sexual contact	• Failure to become adequately sexually aroused to engage in or sustain sexual intercourse	• Difficulty reaching orgasm or reaching orgasms more rapidly than one would like	• Persistent or recurrent experience of pain during coitus


Sexual Response Cycle
Sexual Arousal
Time
Desire
Excitement
Plateau
Orgasm
Resolution
Male hypoactive sexual Desire Disorder
Female Hypoactive sexual desire disorder
Female Sexual Arousal Disorder
Erectile dysfunction
Genito-pelvic pain/penetration disorders
Premature ejaculation
Delayed or Anejaculation
Female orgasmic disorder

Sex hormone or neurotransmitter	*Sexual functioning affected*	*Type of effect*	*Comments*
Dopamine	Desire, arousal	Positive	May promote willingness to continue sexual activity after it is initiated
Estrogen	Arousal, desire	Positive	Estrogen deficiency is associated with vaginal atrophy, decreased lubrication, vasocongestion, and sensation
Nitric oxide	Vasocongestion of clitoral tissue	Positive	Adequate levels of estrogen and testosterone may be needed for nitric oxide to initiate vasocongestion
Norepinephrine	Arousal	Positive	—
Oxytocin	Receptivity, orgasm	Positive	Associated with increased perineal contractions with orgasm
Progesterone	Receptivity	Positive	May be antiestrogenic
Prolactin	Arousal	Negative	—
Serotonin	Arousal, desire	Positive and negative	Inhibits norepinephrine and dopamine; may facilitate uterine contractions during orgasm, but also may inhibit orgasm by different mechanisms
Testosterone	Desire, initiation of sexual activity	Positive	Low circulating levels of testosterone are not clearly associated with decreased sexual desire[12]
Vasoactive intestinal peptide	Vasocongestion of clitoral tissue	Positive	—

Information from references 2, 11, and 12.

Frank J, Mistretta P, Scott J. Diagnosis and treatment of female sexual dysfunction. American family physician 2008

Who should we screen for sexual dysfunction?

Table 5. Models for Initiating Discussion and Treatment of Female Sexual Dysfunction

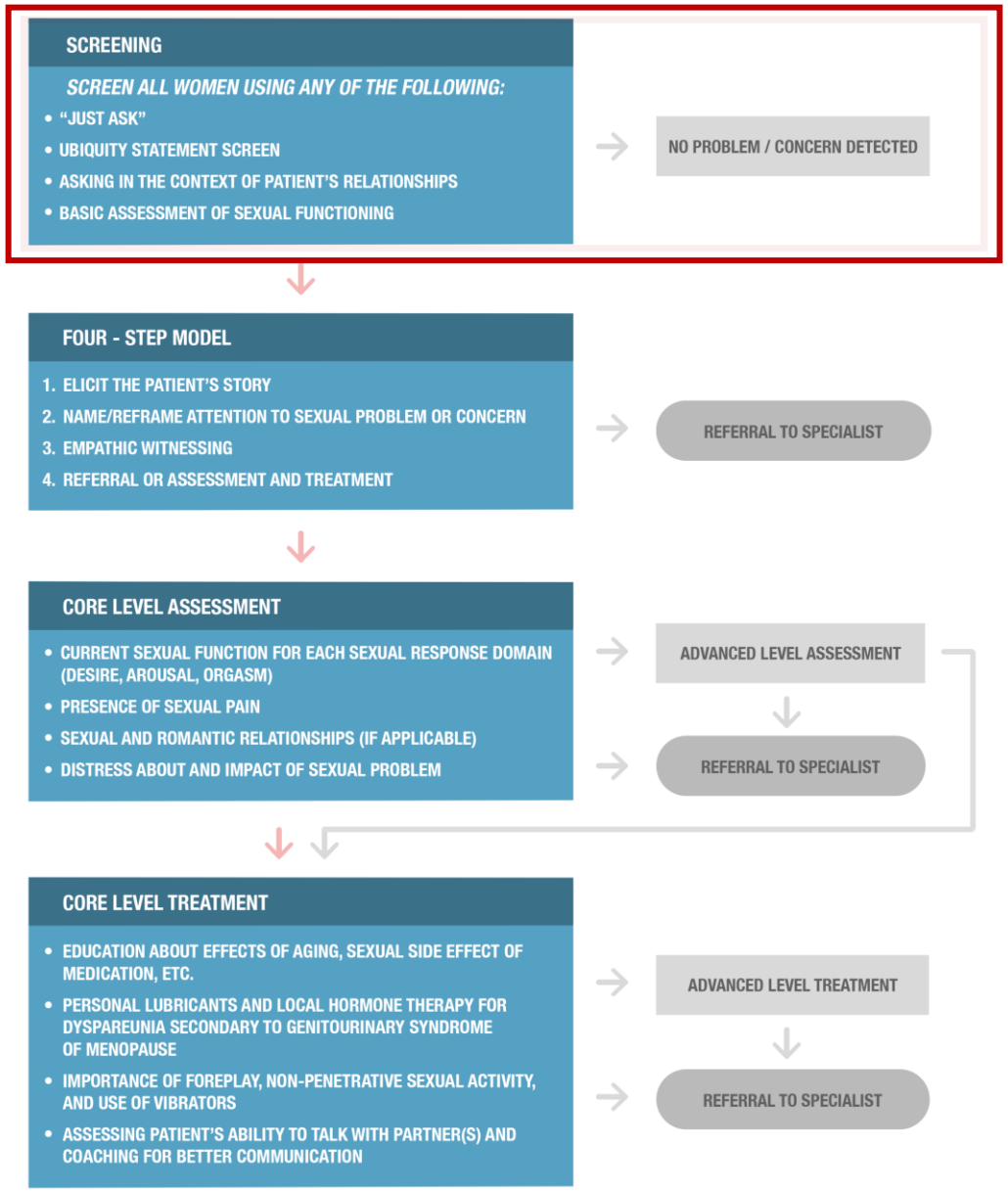
ALLOW
Ask the patient about sexual function and activity
Legitimize problems, and acknowledge that dysfunction is a clinical issue
Identify limitations to the evaluation of sexual dysfunction
Open up the discussion, including potential referral
Work with the patient to develop goals and a management plan
PLISSIT[15]
Obtain permission from the patient to discuss sexuality (e.g., "I ask all my patients about their sexuality, is that okay to do with you now?")
Give limited information (e.g., inform the patient about normal sexual functioning)
Give specific suggestions about the patient's particular complaint (e.g., advise the patient to practice self-massage to discover what feels good to her)
Consider intensive therapy with a sexual health subspecialist

ALLOW = Ask, Legitimize, Limitations, Open up, Work together; PLISSIT = Permission, Limited Information, Specific Suggestions, Intensive Therapy.

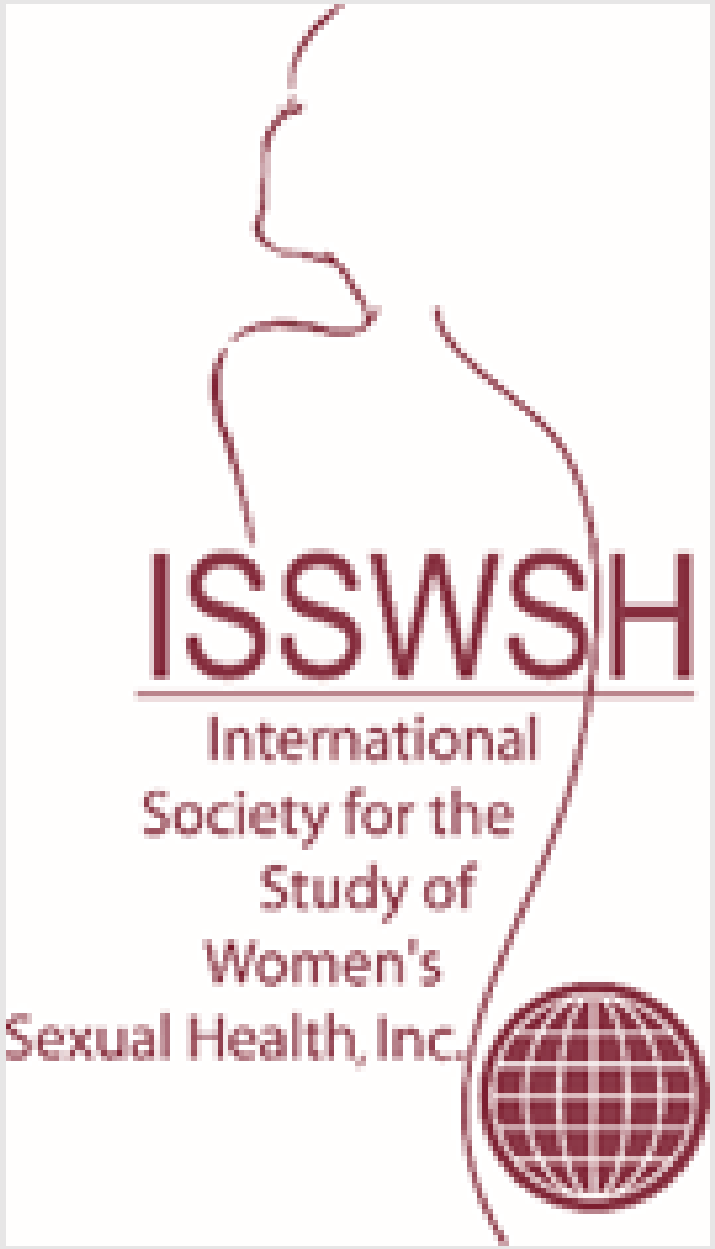
Information from references 15 and Sadovsky R. The role of the primary care clinician in the management of erectile dysfunction. Rev Urol. 2002;4(suppl 3):S54-S63.

Frank J, Mistretta P, Scott J. Diagnosis and treatment of female sexual dysfunction. American family physician 2008

ISSWSH PROCESS OF CARE FOR IDENTIFICATION OF SEXUAL CONCERNS IN WOMEN



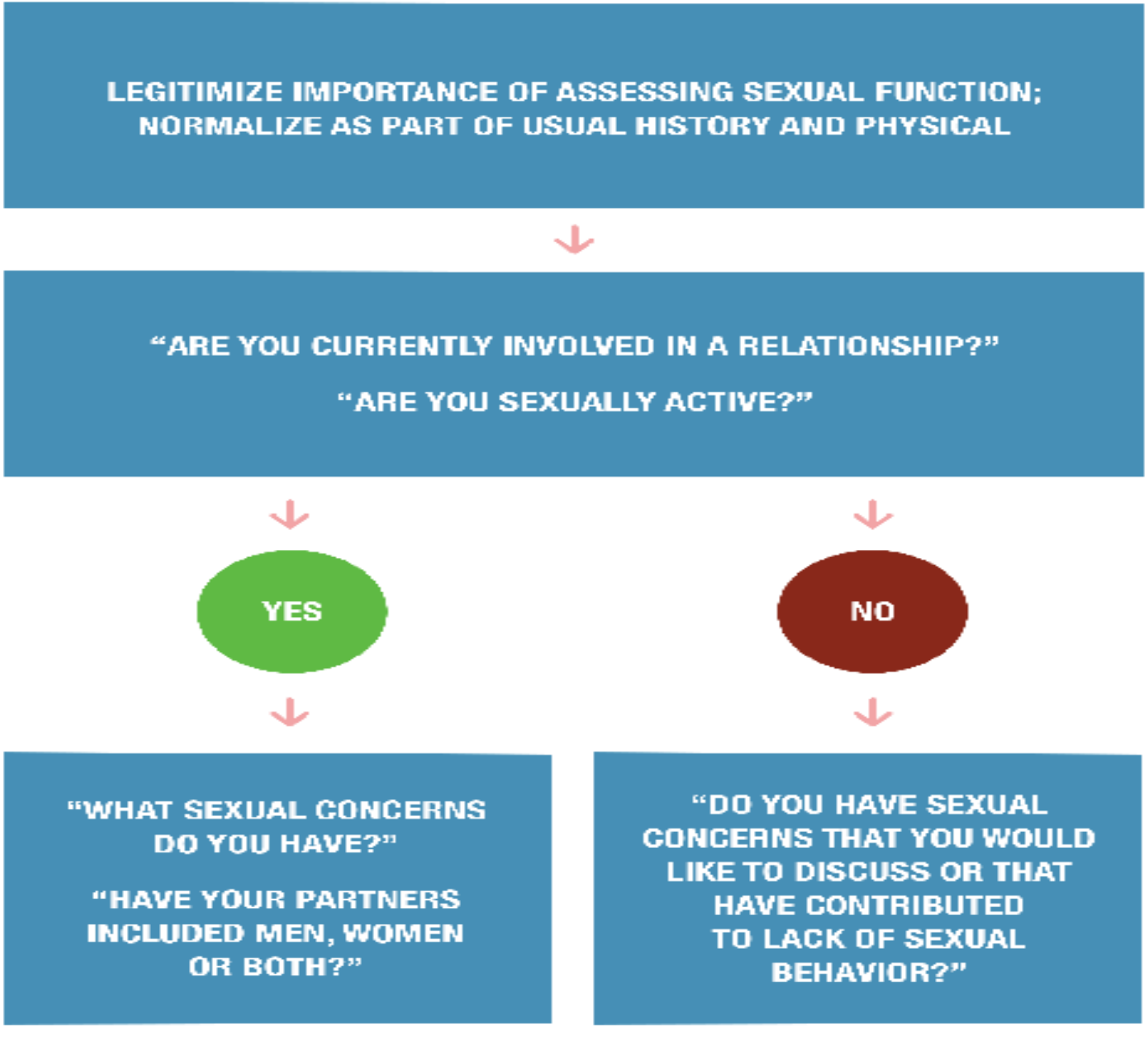
Parish et al. Mayo Clinic Proceedings



SCREENING

SCREEN ALL WOMEN USING ANY OF THE FOLLOWING:

- "JUST ASK"
- UBIQUITY STATEMENT SCREEN
- ASKING IN THE CONTEXT OF PATIENT'S RELATIONSHIPS
- BASIC ASSESSMENT OF SEXUAL FUNCTIONING


LEGITIMIZE IMPORTANCE OF ASSESSING SEXUAL FUNCTION; NORMALIZE AS PART OF USUAL HISTORY AND PHYSICAL
"ARE YOU CURRENTLY INVOLVED IN A RELATIONSHIP?"
"ARE YOU SEXUALLY ACTIVE?"
YES
NO
"WHAT SEXUAL CONCERNS DO YOU HAVE?"
"HAVE YOUR PARTNERS INCLUDED MEN, WOMEN OR BOTH?"
"DO YOU HAVE SEXUAL CONCERNS THAT YOU WOULD LIKE TO DISCUSS OR THAT HAVE CONTRIBUTED TO LACK OF SEXUAL BEHAVIOR?"

FOUR - STEP MODEL

1. ELICIT THE PATIENT'S STORY
2. NAME/REFRAME ATTENTION TO SEXUAL PROBLEM OR CONCERN
3. EMPATHIC WITNESSING
4. REFERRAL OR ASSESSMENT AND TREATMENT

CUA GUIDELINE

2015 CUA Practice guidelines for erectile dysfunction

Anthony J. Bella, MD, FRCSC;[*] Jay C. Lee, MD, FRCSC;[†] Serge Carrier, MD, FRCSC;[§] Francois Bénard, MD, FRCSC;[¥] Gerald B. Brock, MD, FRCSC[±]

- "PCPs, urologists, internists, psychiatrists, and other treating healthcare professionals should be encouraged to i**nitiate an open dialogue of sexual issues** to identify men with ED who may not otherwise volunteer their sexual concerns."

- Frequently a careful history, physical exam, **serum glucose or hemoglobin A1C, lipid profile and optional hormonal testing** facilitate the diagnosis of ED and effective therapy. Patient history can differentiate ED from other male sexual dysfunctions, including ejaculatory disorders (premature ejaculation and other abnormalities), hypogonadism, disorders of orgasm, and Peyronie's disease.

Objectives

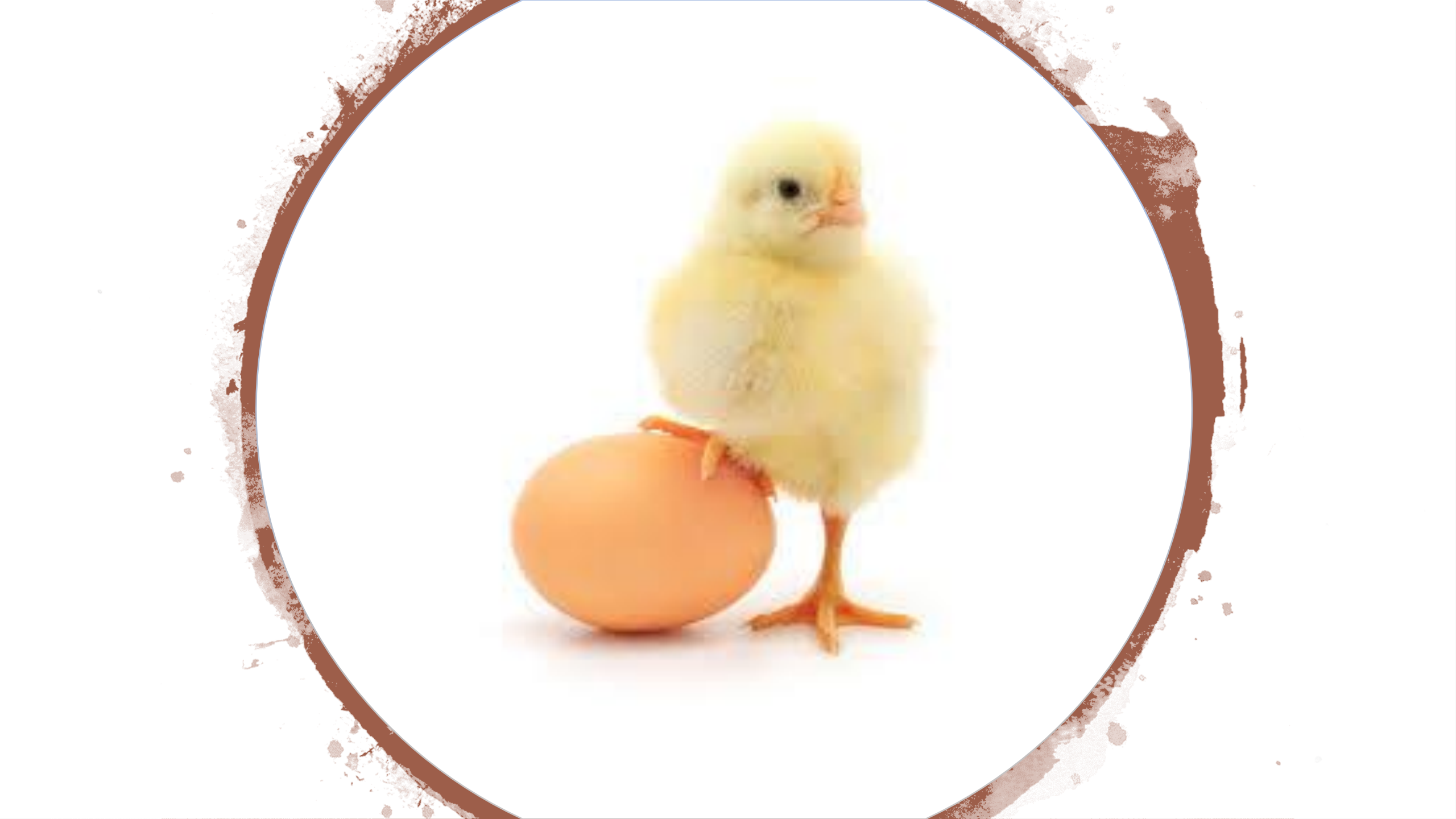
Review sexual function / dysfunction

Impact of sexual function on mental health

Impact of mental health on sexual function

Multi-disciplinary treatment approaches

Discussion

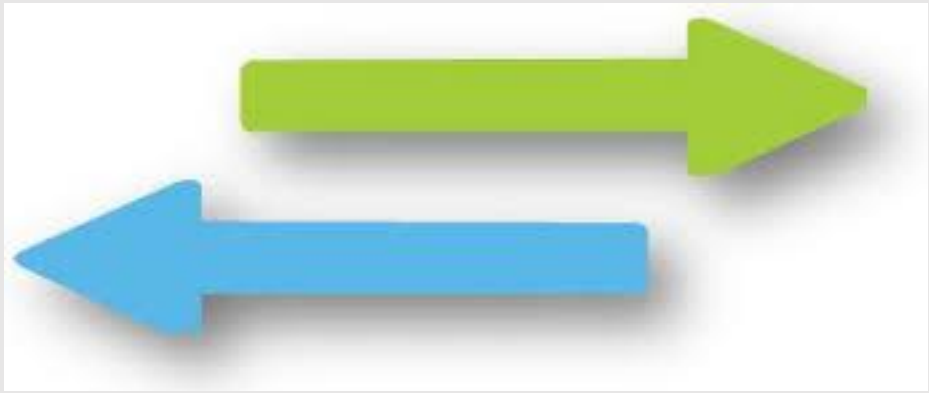


REVIEWS

Bidirectional Association Between Depression and Sexual Dysfunction: A Systematic Review and Meta-Analysis

Evan Atlantis, PhD*† and Thomas Sullivan, BMa, CompSc(Hons)‡

Depression



Sexual Dysfunction

Bidirectional Association

- Patients reporting sexual dysfunction should be routinely screened for depression (RR: 3.2)

- Patients presenting with symptoms of depression should be routinely assessed for sexual dysfunction. (RR: 1.7)

Bidirectional Association

- 40%-80% of people on antidepressants experience sexual side effects[1,2]
- 33-75% of people with anxiety also have sexual dysfunction[3]
- Small improvements in erectile function have a huge impact on patient and partner quality of life; self-esteem[4]

1.Rothschild AJ .Sexual side effects of antidepressants. *J Clin Psychiatry. 2000; 61 Suppl 11():28-36.*

2.Higgins, A.,et al (2010). Antidepressant-associated sexual dysfunction. *2*, 141–150.

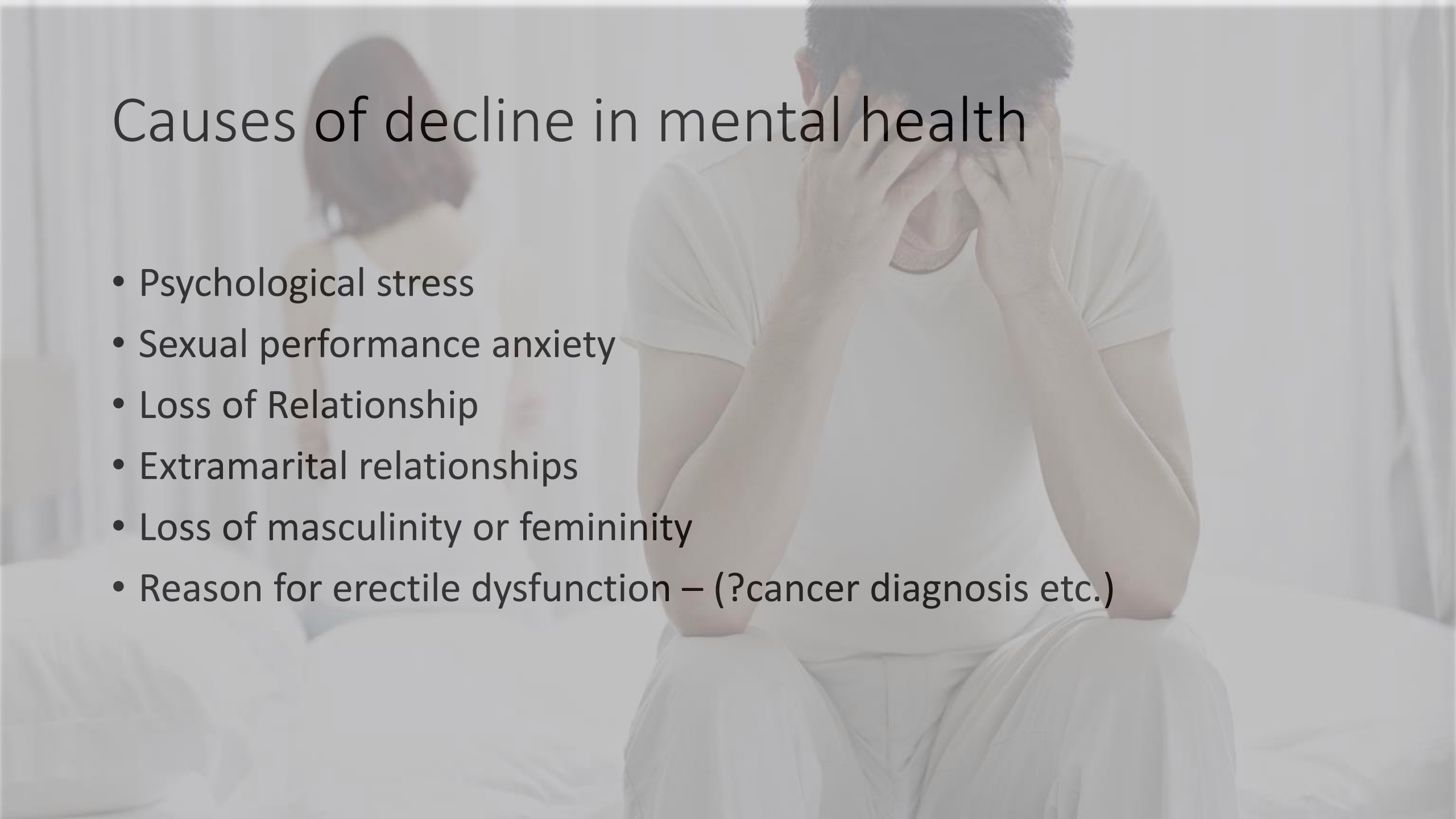
3. Pyke R. Sexual Performance Anxiety. Sex Med Reviews 2019.

4. Costa P, et al. Impact of a first treatment with phosphodiesterase inhibitors on men and partners' quality of sexual life: results of a prospective study in primary care. J Sex Med. 2013

Causes of sexual dysfunction

- Medications
- Apathy
- Low mood
- Loss of interest in sex
- Isolation
- Low self-esteem
- Sexual anxiety
- Trust issues
- History of abuse
- Difficulty finding and keeping a partner
- Stigma

Causes of decline in mental health



- Psychological stress
- Sexual performance anxiety
- Loss of Relationship
- Extramarital relationships
- Loss of masculinity or femininity
- Reason for erectile dysfunction – (?cancer diagnosis etc.)

Impact of treatment

- Improving sexual function improves mental health
- Non-pharmacologic treatment of mental health improves sexual function
- Exercise proven to be beneficial for sexual function and mood
- Improved self-esteem
- Improved relationships

Hormonal Influence

- Low Testosterone
  - Associated with decrease in mood
  - Associated with decrease in sexual function (libido; erectile function)
  - Associated with fatigue
  - More common as men age

JAMA Psychiatry | Original Investigation

Association of Testosterone Treatment With Alleviation of Depressive Symptoms in Men

A Systematic Review and Meta-analysis

Andreas Walther, PhD; Jonas Breidenstein, BSc; Robert Miller, PhD

- 27 RCTs including 1890 men
- TRT significant reduction in depressive symptoms compared to placebo
- Heterogeneous studies
- Depression wasn’t primary end point in most studies

Testosterone for women?

- Low T associated with sexual dysfunction
- Low T associated with depression

- Off-label use of transdermal T to improve sexual desire (HSDD)

Davis SR, et al Androgens and Female Sexual Function and Dysfunction--Findings From the Fourth International Consultation of Sexual Medicine. J Sex Med. 2016 Feb;13(2):168-78.

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Multidisciplinary approach

- Primary care
- Family physician
- Urology
- Gynecology
- Cardiology
- Psychiatry

- Social Work
- Psychologist
- Physiotherapist
- Dietician
- Sex counsellor

Conservative approaches

- Diet
- Exercise
- Smoking cessation
- Avoid illicit drug use
- Work-life balance
- Stress management
- Partner intimacy
- Masturbation
- Prolonged foreplay
- Sex toys (vibrators)
- Lots of lube!

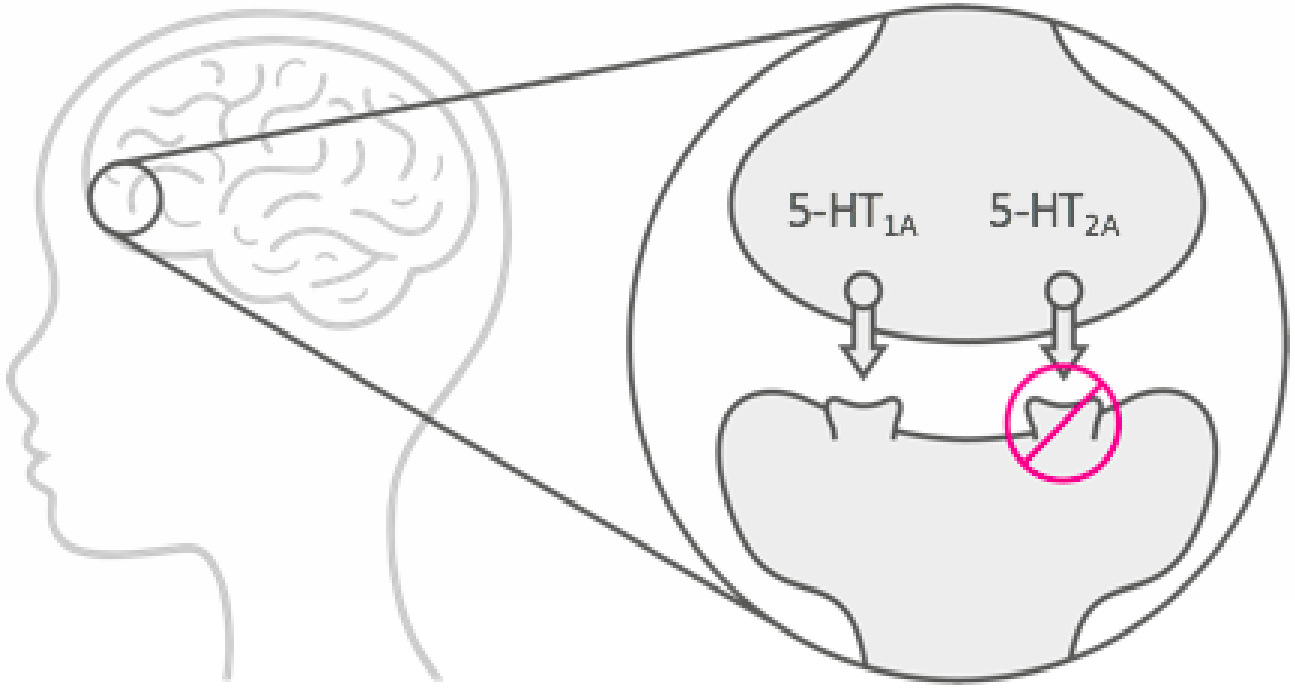
Medical interventions for SD

- PDE5i
- MUSE
- Vacuum erection device
- Intracavernous injections
- Penile prosthesis
- Testosterone replacement
- SSRIs
- Topical ointments
- Flibanserin (Addyi)
- Off-label PDE5i
- Vaginal estrogens
- Hormone replacement therapy
- Off-label testosterone
- Buproprion
- Buspirone

Proposed mechanism of action of Flibanserin

addyi (flibanserin)

Flibanserin increases basal dopamine activity and transiently reduces serotonin activity in the central nervous system by activating serotonin 1A receptors and blocking serotonin 2A receptors.



In vitro binding studies show flibanserin has high affinity for 5-HT_{1A} and 5-HT_{2A} receptors[1]

In vitro binding studies show flibanserin functions as a 5-HT_{1A} agonist and 5-HT_{2A} antagonist[1]

Clinical significance has not been established

1. Borsini F, et al. CNS Drug Rev. 2002;8:117-142.

The first and only treatment for HSDD

addyi (flibanserin)

Indication and usage

Addyi (flibanserin) 100mg tablets is indicated for treatment of premenopausal women with acquired, generalized hypoactive sexual desire disorder (HSDD) as characterized by low sexual desire for a minimum of 6 months, which occurs 75-100% of the time, that causes marked distress or interpersonal difficulty and is NOT due to:

- a co-existing medical or psychiatric condition
- problems within the relationship
- the effects of a medication or other drug substance

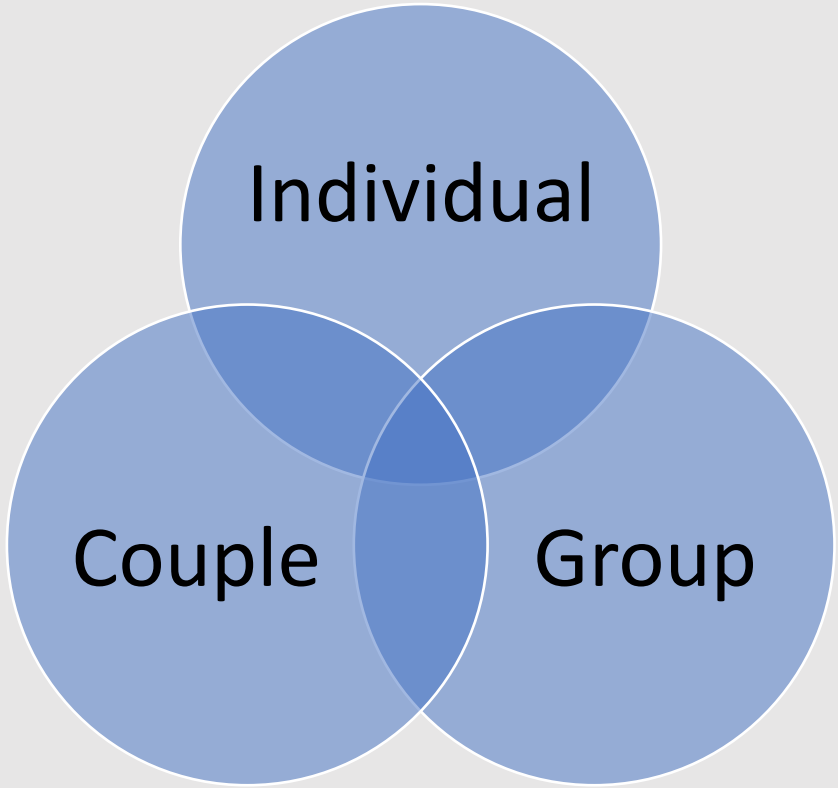
Limitations of use

Addyi is NOT indicated

- for the treatment of HSDD in postmenopausal women or in men
- to enhance sexual performance

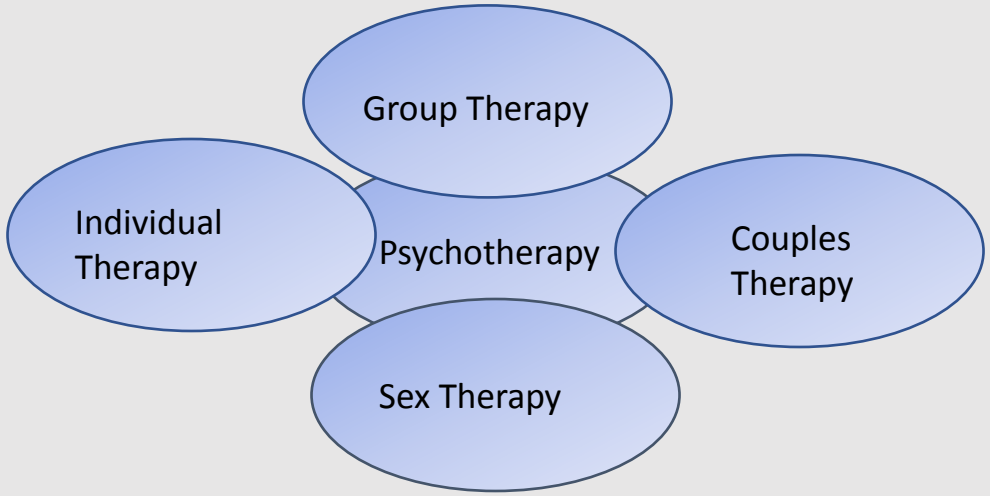
Cognitive-based approaches

- Sex therapy
- CBT
- Mindfulness
- Meditation
- Hypnosis

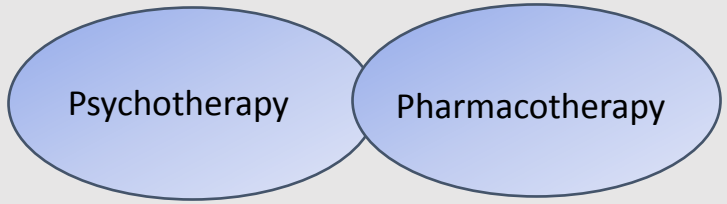


Kingsberg SA, et al. Female Sexual Dysfunction-Medical and Psychological Treatments, Committee 14. J Sex Med. 2017 Dec;14(12):1463-1491.

Psychological Interventions Alone



Combined Medical and Psychology Therapy



Althof S. Sex therapy in the age of pharmacotherapy. Ann Rev Sex Res; 2006;17:116-132.
Brotto L, Frontiers in Neuroendocrinology 2017;45: 11-17

Proven benefits to treating SD

- Improved patient and partner related quality of life
- Improvement in mood
- Reduced situational anxiety
- Increase in pleasure
- Improved self esteem
- Survivorship

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Case 1

Case: 35 y/o male

- Previously diagnosed with depression

  on SSRI x 2 years

RTC: Discusses a decreased libido, decreased erectile function, some fatigue but functional at work. Mental health stable

- No other medications
- Married; 2 kids; works as a contractor; doesn’t smoke/drink/elicit drugs

Case:

- Discussed his symptoms.
- Changed to SNRI
- Offered Viagra samples - declined

- RTC (6 months): Persistent symptoms; mental health stable

NEXT STEPS?

Case Poll?

- ❑ Treat with PDE5i
- ❑ Check Testosterone level
- ❑ Refer to Psychiatry – change medication
- ❑ Refer to Psychology - CBT
- ❑ Refer to Urology
- ❑ Refer to Cardiology

Beware the young “healthy” guy with ED

- Abnormal lipid profile
- Borderline T level
- Failed stress test

- This particular guy ended up having a 90% blockage of his LAD

Case: 48 y/o F

- Patient is booked for a checkup as she was concerned re missed menses, some hot flashes. DLMP 3 months ago
- Overall healthy, married x years, 2 children at university
- Lifestyle: non-smoker, ETOH: 4-5 servings per week, works as secretary, not much physical activity
- Medications: Atorvastatin 20 mg for elevated cholesterol, occasional Zolpidem for sleep issues, Mirena IUS in place x 5 years
- On entering the room she seems stressed, nervous and upset.

Case

- Patient reveals she is very unhappy. Decline in mood. She and her husband have not been having sex despite the kids finally being gone and the issue of birth control no longer being relevant. Relationship taking a toll.

- She reports not really having much interest, feels she is ‘getting old”. Too much effort and no longer feeling attractive. Going on like this for months!

- She “tried” despite lack of desire as she is afraid her husband will just go for someone else if she doesn’t even try. Also feeling a bit dry, just not lubricating as previous

Decreased Sexual Desire Screener (DSDS):

5-Question Tool for Screening[1]

1.	In the past was your level of sexual desire or interest good and satisfying to you?	□ Yes	□ No
2.	Has there been a decrease in your level of sexual desire or interest?	□ Yes	□ No
3.	Are you bothered by your decreased level of sexual desire or interest?	□ Yes	□ No
4.	Would you like your level of sexual desire or interest to increase?	□ Yes	□ No

Patient responds: Yes to all 4

5. Please check all the factors that you feel may be contributing to your current decrease in sexual desire or interest:

A.	An operation, depression, injuries, or other medical condition	□ Yes	□ No
B.	Medication, drugs or alcohol you are currently taking	□ Yes	□ No
C.	Pregnancy, recent childbirth, menopausal symptoms	□ Yes	□ No
D.	Other sexual issues you may be having (pain, decreased arousal or orgasm)	□ Yes	□ No
E.	Your partner's sexual problems	□ Yes	□ No
F.	Dissatisfaction with your relationship or partner	□ Yes	□ No
G.	Stress or fatigue	□ Yes	□ No

Patient responds: No to all

If "YES" to all Q1–4 and "YES" to any Q5 factor = clinician to use best judgment to determine diagnosis*

*Co-morbid conditions such as arousal or orgasmic disorder do not rule out a concurrent diagnosis of HSDD

1. Clayton AH, Goldfischer ER, Goldstein I, et al. *J Sex Med.* 2009;6(3):730-738.

Hypoactive Sexual Desire Disorder (HSDD)

Sexual desire is a construct that is not specifically event-related.

HSDD, most common FSD, affecting 10% of women

Manifests as *any* of the following for a minimum of six months:

- Lack of motivation for sexual activity manifested by either:
  - Reduced or absent **spontaneous** desire (sexual thoughts or fantasies)
  - Reduced or absent **responsive** desire to erotic cues and stimulation or inability to **maintain** desire or interest through sexual activity
- Loss of desire to **initiate or participate** in sexual activity, including behavioral responses such as avoidance of situations that could lead to sexual activity, not secondary to sexual pain disorders
- **AND** is combined with clinically significant personal distress that includes frustration, grief, incompetence, loss, sadness, sorrow, or worry

Parish et al. J Sex Med 2016;13(12):1888-1906.

Laboratory Investigations

- **“Fatigue” profile**
  - **Blood Work to include:**
    - CBC, ferritin, B12, folate, vitamin D
    - Thyroid function (TSH, Free T4)
    - Testosterone profile
      - Total testosterone
      - Free and bioavailable
      - SHBG

Treatment Options

- Addyi ® (flibanserin)
- Menopausal hormone therapy
- Off-label systemic testosterone therapy
- Off-label bupropion
- Local vaginal treatments
- Sex counselling

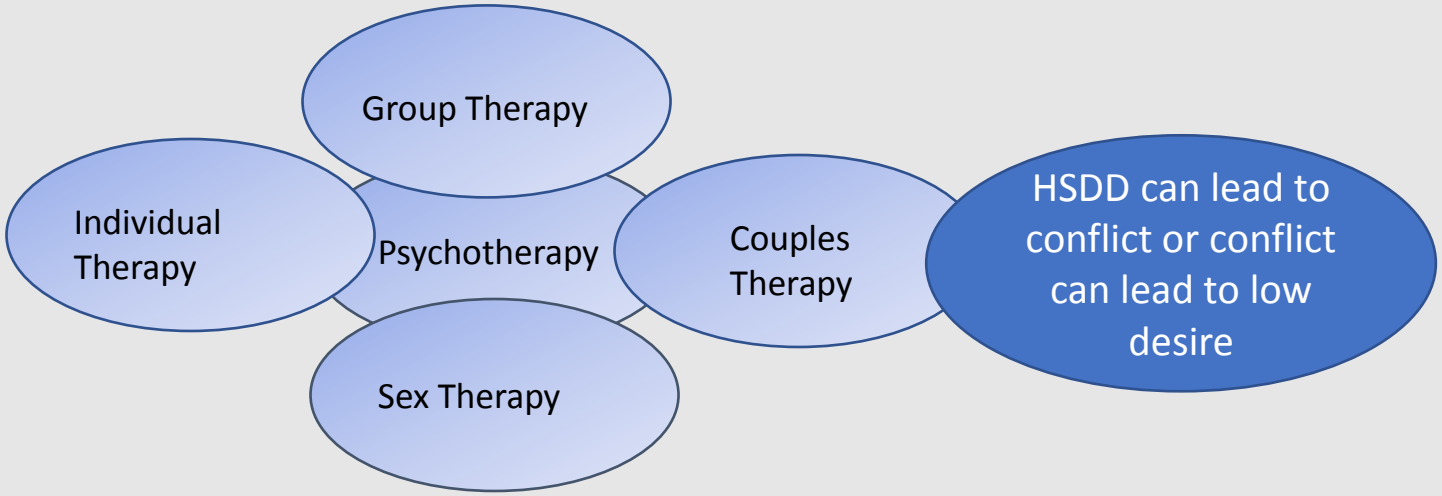
Sexual Counseling/Therapy

- Psychotherapy with a chief complaint of a sexual problem
  - Based on principles of learning and cognitive processing as the mechanism of change

- Although the stated goal is to correct a sexual problem, sex therapy often does not focus solely on sexual function

Heiman JR, 2002; Barlow D, 1986

Psychological Interventions Alone



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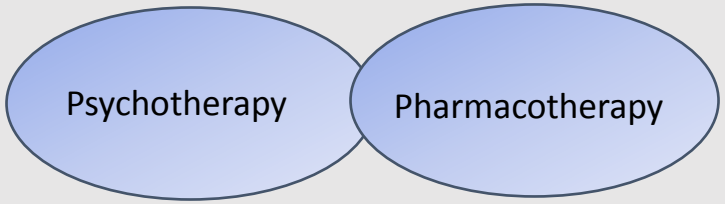

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Brotto L, Frontiers in Neuroendocrinology 2017;45: 11-17

Identification of Psychological Factors Contributing to HSDD Helps Determine Appropriate Intervention

Psychological Factor	Recommended Approach
Depression/anxiety	Pharmacotherapy/cognitive behavioral therapy
Poor self/body image	Psychotherapy
Stress/distraction	Cognitive behavioral therapy
History of abuse (physical, sexual, emotional)	Psychotherapy
Substance abuse	Psychotherapy
Self-imposed pressure for sex	Office-based counseling or refer for cognitive behavioral therapy
Religious, personal, cultural or family values, beliefs and taboos	Office-based counseling or refer for cognitive behavioral therapy
Relationship factors	Office-based counseling or refer for individual/couples therapy
Lifestyle factors (e.g., fatigue, sleep deprivation)	Office-based counseling
Sexual factors (e.g., inadequate stimulation)	Office-based counseling

Goldstein et al. Mayo Clinic Proc 2017 Jan;92(1):114-128.

Case: 33 y/o male

- Previous divorce (~2.5 years); new very supportive partner
- Can pinpoint the exact date of loss in erectile function
- Partner = mutual friends, dated for awhile, went out to a bar, had a ‘few too many’ drinks
  - Failed attempt at intercourse
- Since this episode – unable to get an erection (alone or with partner)

- History of GAD – controlled with CBD; now not well controlled due to sexual stress and performance anxiety

Case

- Normal physical exam; normal testis; normal external genitalia
- The usual ED work-up (cardiac) = negative
- AM free Testosterone – 17.1 (N)

- Doppler US of penis done to r/o injury → Normal

- Referral to back to psychiatry re: uncontrolled GAD

Case

- Gave patient 2.5mg daily Cialis to take for 3 months

Int J Clin Pract. 2000 Nov;54(9):561-6.

Sildenafil citrate (Viagra) is effective and well tolerated for treating erectile dysfunction of psychogenic or mixed aetiology.

Olsson AM[1], Speakman MJ, Dinsmore WW, Giuliano F, Gingell C, Maytom M, Smith MD, Osterloh I; Sildenafil Multicentre Study Group.

Case

- 3 months later – noticing more morning and spontaneous erections, but not much improvement with sexual activity

- Refer to RSW with keen interest in Men’s Health

Case

- CBT
- Meditation
- Mindfulness based therapy
  - Mindful breathing exercises

- Given 8 week regime
- Feels “more in [his] body and less in [his] head”
- Some improvement in sexual function

Case:

- Ongoing CBT and Mindfulness-based therapy
- Addressed “cognitive distortions” held around sexual performance
- Set realistic expectations
- Involved partner and completed intimacy exercises

Case:

- Improved confidence
- Improved self-esteem
- No medications required
- Achieving sexually satisfying events

Take Home points

- There is more to sexual dysfunction than ED
- FDA approved treatment for women with HSDD (addyi)
- Treat the couple
- Beware the young guys with ED
- Hypogonadism can present as depression
- Pharmacotherapy with Psychotherapy = best approach
- Lets work together

Questions

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