Female Sexual Dysfunctions and Treatments

Daniela Wittmann, PhD, LMSW
Associate Professor
Department of Urology
University of Michigan
USA

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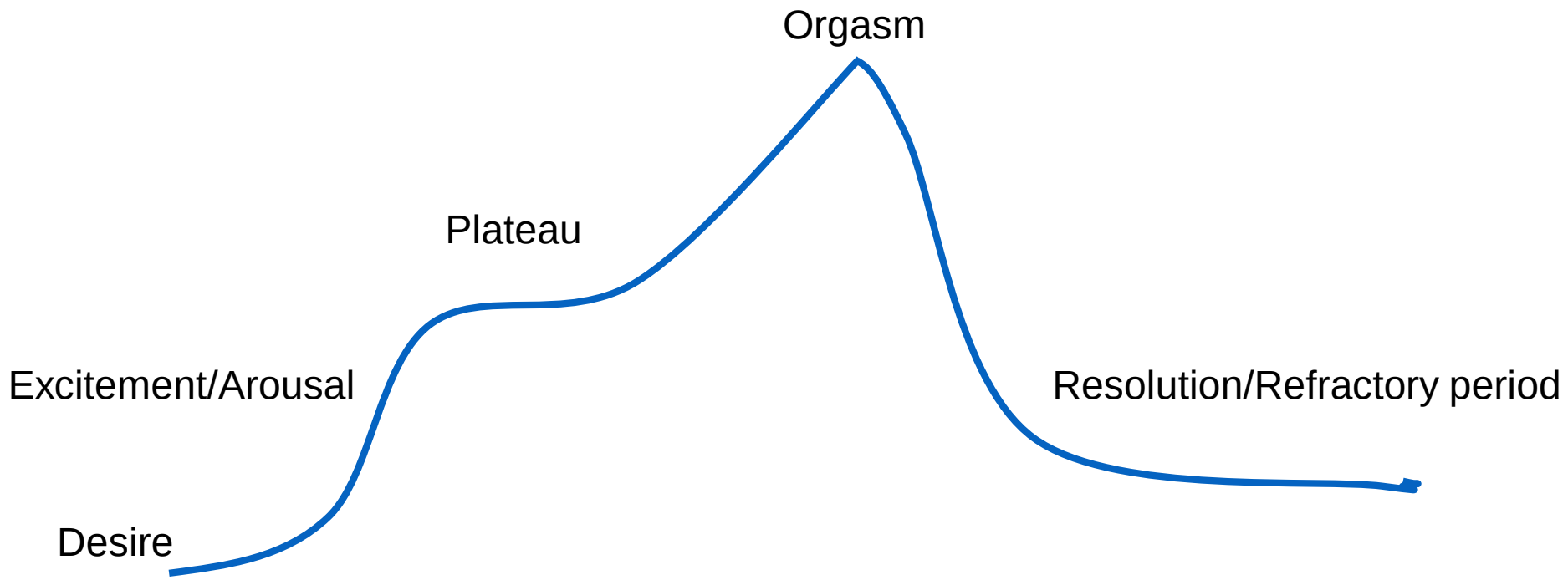
The Human Sexual Response Cycle

Masters and Johnson + Helen Singer-Kaplan



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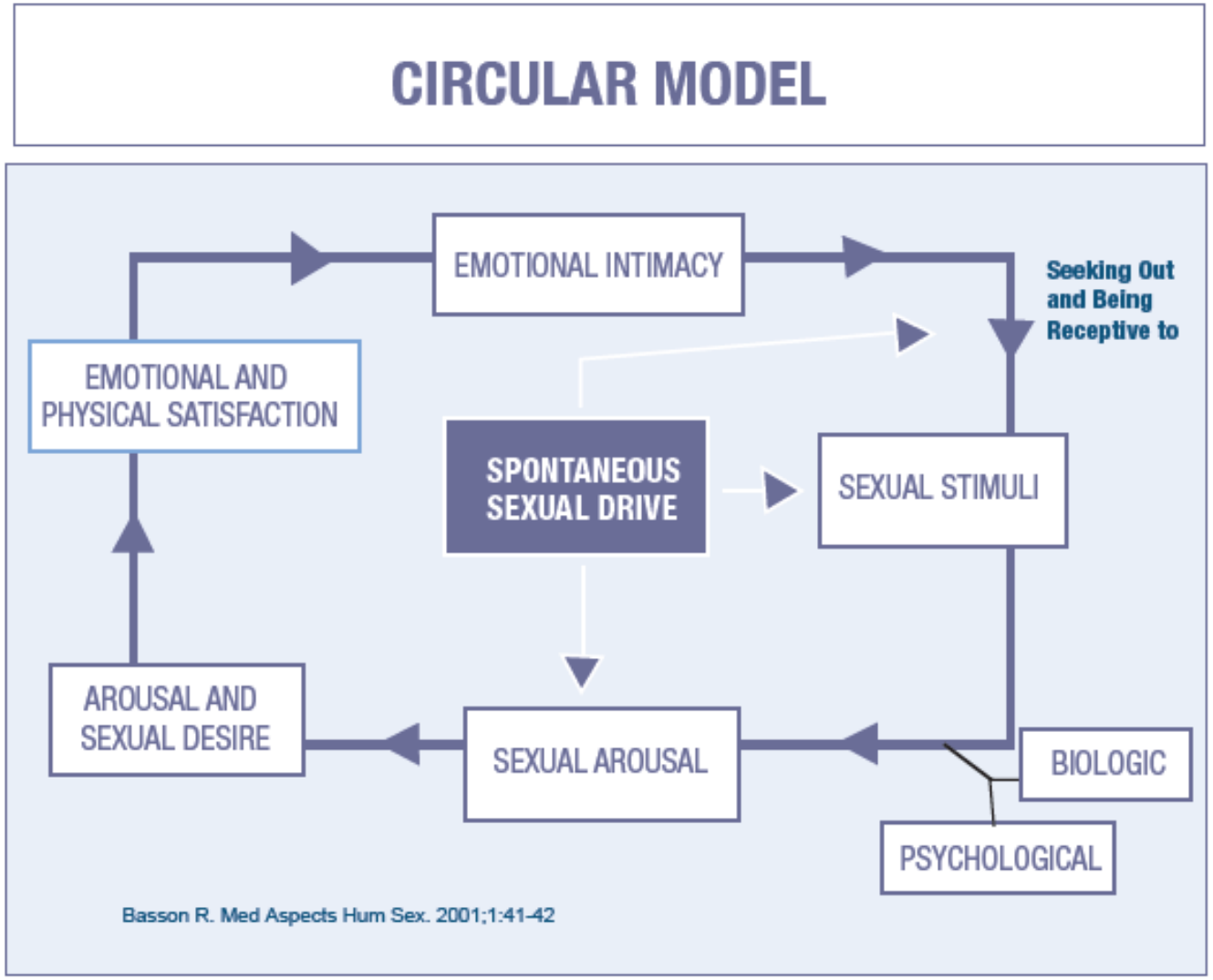
Rosemary Basson's Model of Female Sexual Arousal



- Women more often start from a neutral position
- Women more often assess the quality of relationship
- Women are more often attuned to environmental distractions

What Female Sexual Dysfunctions (FSD) do We See in Practice?

- 30%-50% US women report having at least one significantly distressing sexual problem at some point in time

- Female Sexual Interest-Arousal Disorder (Includes Lubrication)

- Female Orgasmic Disorder

- Genito-Pelvic Pain Penetration Disorder (Dyspareunia and Vaginismus)

(Diagnostic and Statistical Manual of Mental Disorders (DSMV), Fifth Edition, 2013)

Common Diagnostic Criteria

- Specify whether
  - Lifelong (present since the individual became sexually active)
  - Acquired (began after a period of relatively normal sexual function)

- Specify whether
  - Generalized: Occurs across all situations
  - Situational: Only occurs with certain types of stimulation, situations, or partners

- Not better explained by:
  - A nonsexual mental disorder
  - A significant stressor, severe relationship distress
  - A substance/medication or medical condition

- Consider
  - Whether it causes distress

DSMV, 2013

Female Sexual Interest-Arousal

Highly influenced by

- Menopause – loss of estrogen
- Contextual factors – stress, distraction in work or home environment
- Chronic conditions and their treatment
- Relationship problems
- Loss and grief

Female Orgasmic Function

Possible reasons for dysfunction

- Difficulty focusing on own pleasure
- Relationship factors – difficulty focusing on self in the context of sexual activity, unresponsive partner
- Antidepressants - selective serotonin uptake inhibitors (SSRIs)
- Chronic conditions – fatigue, poor blood flow, hyper-arousal (spinal cord injury)

Genito-pelvic Pain: Dyspareunia

- Persistent/recurrent pain with attempted or complete vaginal entry and/or penile vaginal intercourse
- Most Common Causes: Vulvodynia < age 50, Vulvovaginal atrophy > age 50
- Vulvodynia: chronic vulvar discomfort/pain in areas outside of the vestibule, characterized by burning, stinging, irritation or rawness of the female genitalia with no infection or skin disease
- Vestibulodynia: chronic vulvar discomfort/pain at the entranceway to the vagina
- Vulvovaginal atrophy: occurs with menopause
- Female genital cutting: complex area that needs further research

Genito-pelvic Pain: Vaginismus

- Persistent or recurrent difficulties of the woman to allow vaginal entry of a penis, a finger, and/or any object, despite the woman's expressed wish to do so

- Anxiety is often a correlate

- Frequent causes
  - lack of sex education
  - inexperience
  - partners do not know each other

Context for Sexual Dysfunctions in Women

- Sexuality and Youth
- Sexual Trauma
- Sexuality and Aging
- Chronic Illness/Medication Induced Sexual Dysfunction
- Psychological and Relationship Factors

Youth

(Moreau et al., BMC Public Health. 2016)

- Young women (15-24 yo) experience more sexual dysfunctions than young men, on average

Type of sexual dysfunction hindering sexuality	Females N=842	Males N=642	p
Difficulty reaching orgasm	12%	3%	<0.001
Lack of sexual desire	13%	4%	<0.001
Pain during intercourse	16%	2%	<0.001
Lack of pleasure during intercourse	10%	3%	<0.001
Vaginal dryness	7%		

Trauma

(Yehuda et al., J Sex Med, 2015)

- Sexual arousal involves pleasurable sensations, feelings and increased desire
- In trauma survivors, sexual arousal is paired with threat arousal that involves fear - this inhibits desire
- Cortisol – stress hormone - interferes with the production of testosterone implicated in arousal in men and somewhat in women
- Psychologically, survivors cope with feelings of distrust, intrusive images of past trauma
- Survivors with concomitant depression may be treated with Selective Serotonin Uptake Inhibitors (SSRIs) which interfere with orgasmic function

Aging

(Foley, Curr Sex Health Rev, 2016)

- Loss of Estrogen in menopause
- Lower hormonally driven sexual interest
- Vaginal dryness
- Change in sensations, usually reliable orgasmic function with the stimulation of the clitoris
- Comorbid conditions
- Psychological interest, emotional and relationship factors become more significant

Sexuality and Chronic Illness in Women

- Heart Disease
- Diabetes
- HIV
- Spinal Cord Injury
- Mental Illness

Heart Disease

- Poor blood flow due to
  - Endothelial dysfunction (loss of Nitric Oxide leads to loss of ability of vessels to dilate)
  - Atherosclerosis (blockage of arteries)

- Consequences of poor blood flow - thinning of vaginal walls, poor lubrication

- Anxiety - fear of recurrence of cardiac symptom with sexual activity – avoidance of sex, loss of desire

- Depression - Loss of desire in more than 50% of patients (Friedman, Am J Cardiol, 2000)

- Treatment - Beta blockers and diuretics affect women's ability to lubricate

- Lack of sexual health counseling led to loss of sexual activity after myocardialinfarction (Lindau, Am J Cardiol, 2012)

- Sexual Activity and Cardiovascular Disease : A Scientific Statement From the American Heart Association (Levine, et al., Circulation, 2012)

Diabetes

(Nowosielski, J Sex Med, 2011)

- Poor blood flow due to
  - Endothelial dysfunction (loss of Nitric Oxide leads to loss of ability of vessels to dilate)
  - Atherosclerosis (blockage of arteries)

- Consequences of poor blood flow - thinning of vaginal walls, poor lubrication

- Neuropathy – lower sexual sensitivity, orgasmic difficulty

- Comorbidities – hypertension, cardiovascular disease, obesity, depression
-
- Fatigue/apathy/variation of energy, based on blood sugar level – low desire

- Partner factors and depression were the strongest predictors of sexual dysfunction

HIV

(Bouhnik et al., AIDS, 2008)

- The virus generally does not directly produce specific sexual side-effects
- Women with CD4+ lower than 200 had poorer sexual function (FSFI) than those with higher CD4+ count, however, other correlates were present (relationship problems, depression, etc.) (Wilson et al., J AIDS, 2010)
- Comorbidities are accelerated, include to genital warts, candida – can lead to sexual dysfunction
- Social stigma – lower desire, avoidance of sexual activity, discrimination
- Depression, anxiety, body image
- Sexual issues are understudied in this population beyond STD prevention!

Psychiatric Disorders

(Basson, The Lancet 2007)

- Anxiety and depression - 50 – 60% of untreated patients suffer from disorder of sexual desire and dyspareunia
- Bi-polar disorder - hyper-sexuality
- Psychosis/schizophrenia - Loss of sexual desire due to negative symptoms
- Antipsychotics reduce sexual desire in patients with schizophrenia
- Selective serotonin re-uptake inhibitors interfere with desire/arousal and orgasmic capacity
- Bupropion is an antidepressant that does not have sexual side-effects

Psychological and Relationship Factors

- Sexual confidence
- Sexual function knowledge/sex education
- Body image – at least in part influenced by culture
- Relationship problems
- Partner sexual dysfunction
- Power/dominance in relationship/cultural issues

Psychosexual Assessment

- Patient's understanding of cause/s of sexual dysfunction and distress
- Relationship/emotional/loss/desire discrepancy
- Personal and sexual history, including attitude to sex/sexuality
- History of sexual abuse and other trauma
- History of mental illness
- Substance abuse, smoking

- Impact of medical conditions and medications – referrals as needed
- **Sexual problems are typically multifactorial**

Treatment for Female Sexual Dysfunction

Lifestyle modifications

- Smoking
- Alcohol use
- Exercise
- Diet

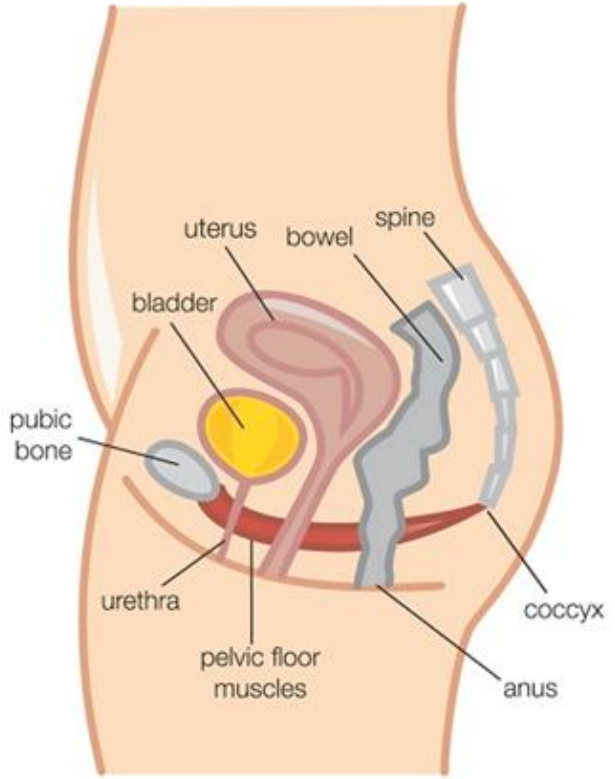
Physiologic Treatments – Pelvic Floor Rehabilitation

Pelvic floor

- muscles control bladder/bowel as well as sexual function
- is highly reactive to emotional stimuli
- muscles may not be tight enough or they may be too tight

Rehabilitation

- Improves muscle tone
- Removes nerve entrapment
- Softens scar tissue
- Decreases pain



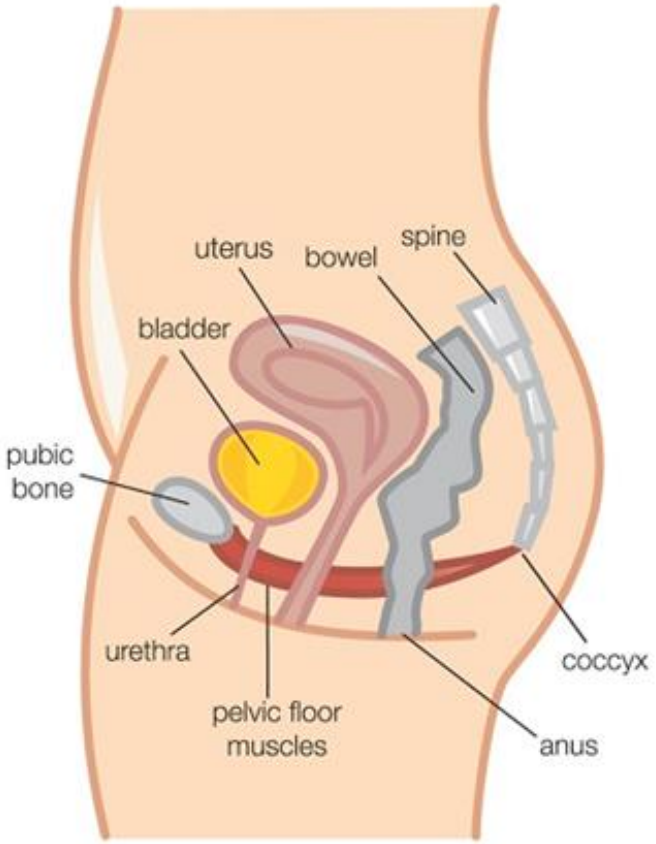
Physiologic Treatments – Vaginal Health

Vaginal moisturizers & lubricants

- Moisturizers (3-5x week as needed)
- Lubricants: Water-based/Silicone, glycerin & perfume-free
- Coconut oil for perineum/ perineal massage

Possible use of hormone replacement (post-menopausal vulvovaginal atrophy)

- Estradiol (vaginal ring) – stays intact up to 3 months
- Estradiol (vaginal cream used regularly)
- Yuvafem - tablet that sticks to vaginal wall
- Not indicated for women with Estrogen driven cancers



Physiologic Treatments – Vaginal Health

- Vaginal Dilator Therapy
  - Mechanically increases stretch
  - Improves competence to relax
  - Addresses muscle-clenching reaction triggered by pain/fear / vaginismus
  - Used with lubricants

Physiologic Treatments – Vaginal Health

- Vibrator and vacuum therapy improve blood flow, sexual sensation and orgasmic capacity

  - Vibrators

Clitoral pump

Specific Treatments for Vulvar Pain (Vulvodynia and Vestibulodynia)

- Antifungals, Corticosteroids, Topical Agents - Xylocaine
- Antidepressants – Amitryptiline, Nortriptyline, Duloxetine
- Anticonvulsants – Gabapentin
- Surgical excision for vestibulodynia if all other treatments have failed
- Important caveat – psychological and couple treatment should be concomitant with medical treatments

Medical Treatments – Low Sexual Desire

Treatment for Low Desire	Mechanism of Action
Flibanserin (daily use)	5-HT1A serotonin receptor agonist and 5-HT2A receptor antagonist
Bremalanotide (on-demand use)	Melanocortin 1 & 4 receptor agonist

Adapted from Faubion et al, Menopause, 2018

Psychosocial Treatments for Low Sexual Desire

Sensate Focus Exercise

Table 1.
Example of Sensate Focus Exercises

Stage I
Body Exploration
No Intercourse, Genital, or Breast Touching
Level 1: Sitting face to face — touching above the neck permissable
Level 2: Sitting face to face — touching entire body permissable
Level 3: Embrace with exploration

Stage II
Body Exploration with Genital and Breast Touching
No Intercourse Allowed
Level 1: Sitting face to face-breast and chest touching only.
Level 2: Light genital touching along with all other touching.
Level 3: Genital touching with climax allowed.

Stage III
Body Exploration with Intercourse
Level 1: Penis placed in vagina without any thrusting.
Level 2: Penis placed in vagina with light thrusting from female partner.
Level 3: Full-thrusting intercourse with resulting climax.

Masters and Johnson, Heterosexuality, 1994,
Albaugh, Urol Nsg, 2002

Mindfulness-based Cognitive Behavioral Sex Therapy

- 4 sessions group-based interventions
- 115 female participants randomized into intervention and delayed groups
- Improved desire, arousal, lubrication

Brotto and Basson, Beh Res and Ther, 2014

Goals of Sex Therapy

- Include the partner whenever possible
- Improved sexual function – may include competency in the use of aids to sexual functioning
- Improved couple communication – mutuality, respect for past sexual trauma, strategies for dyspareunia
- Improved couple sexual interactions, including expansion of sexual repertoire, scheduling regular dates for sexual activity
- Improved sexual and personal confidence
- Alleviation of symptoms of depression or anxiety
- Collaboration with other disciplines – gynecology, physical therapy, psychiatry, urology, & other specialists

Doctors Asking About Sexual Problems

- 54% of women think that doctors should routinely ask about sexual problems
- 15 % women were asked in the past 3 years

Laumann et al., Int J Impotence Research, 2009

Start the Conversation

- Use a screener or an assessment form
- It may help make the conversation more comfortable for you and for the patient

Please answer the following questions about your overall sexual function:

1. Are you satisfied with your sexual function? ❑ Yes ❑ No

2. Do you have any concerns about vaginal health? ❑ Yes ❑ No

If not satisfied with sexual function AND/OR concerns about vaginal health, please continue.

2. Do you experience any of the following sexual problems or concerns?

❑ Little or no interest in sex

❑ Decreased sensation (or loss of sensation)

❑ Decreased vaginal lubrication (dryness)

❑ Difficulty reaching orgasm

❑ Pain during sex

❑ Vaginal or vulvar pain or discomfort (not during sex)

❑ Anxiety about having sex

❑ Other Problem or Concern: _____

[TIP: Some patients will respond that they are not having these problems or concerns because they stopped having sex altogether. The provider should reassure the patient, let her know that she is not alone, and ask if she can recall what kinds of problems or concerns she was having that led her to stop having sex.]

3. Would you like more information, resources, and/or would you like to speak with someone about these issues?

❑ Yes ❑ No

Bober, Supp & Pall Care, 2015

Table 1 The Decreased Sexual Desire Screener (DSDS) used in the non-treatment validation study

Dear Patient,

Please answer each of the following questions:

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
5. Please check all the factors that you feel may be contributing to your current decrease in sexual desire or interest:	Yes/No

A: An operation, depression, injuries, or other medical condition
B: Medication, drugs or alcohol you are currently taking
C: Pregnancy, recent childbirth, menopausal symptoms
D: Other sexual issues you may be having (pain, decreased arousal or orgasm)
E: Your partner's sexual problems
F: Dissatisfaction with your relationship or partner
G: Stress or fatigue

When complete, please give this form back to your clinician

Clayton et al., J S Med., 2009

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Thank You

dwittman@med.umich.edu

@Dr.Wittmann