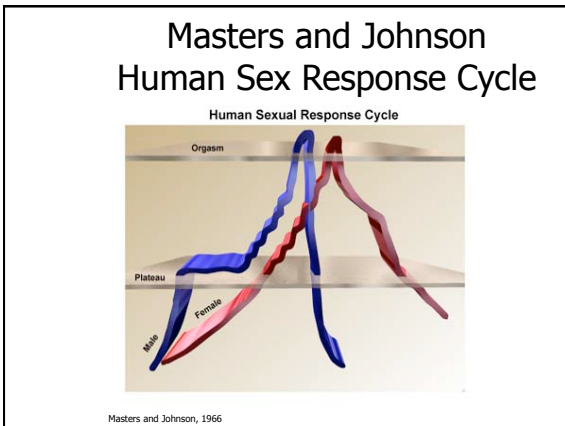
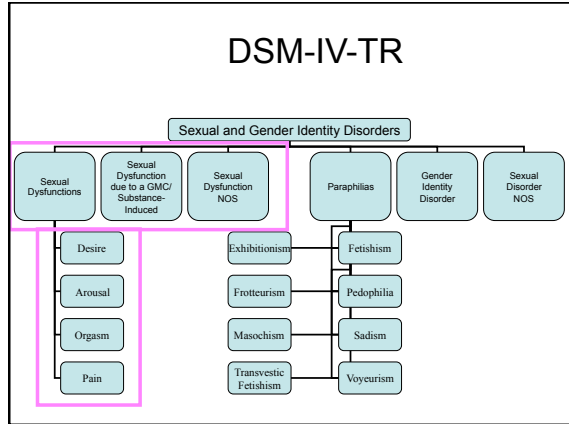
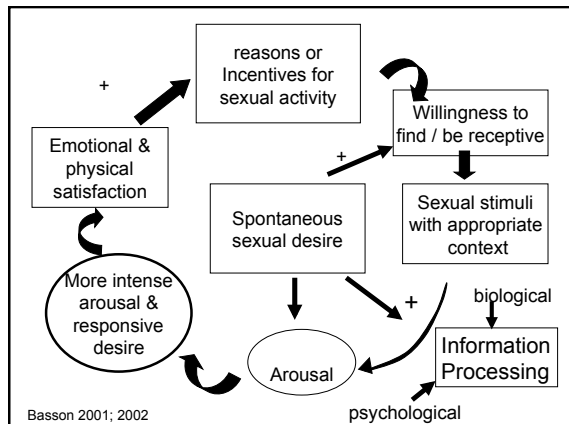


November 18, 2009
 Human Sexuality
 Sexual Dysfunction



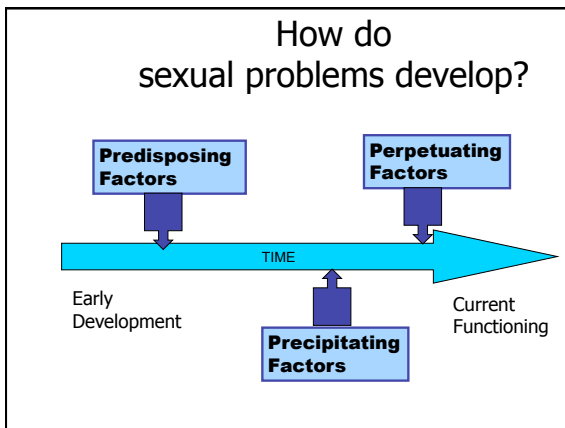
- ### CRITICISMS
- #### Human Sex Response Cycle DSM classification
1. M & J based data only on observed physiological responses
 2. Biased sample
 3. Desire often occurs after arousal, and not often present at first
 4. Sexual stimuli are integral
 5. The outcome strongly influences future motivation
 6. Doesn't account for individual variability, relationship duration
 7. Does not capture subjective sexual excitement
 8. Evidence does not support DSM criteria

- ### Alternative diagnostic systems for female sexual dysfunction
- A New View of Women's Sexual Problems (Kaschak & Tiefer, 2001)
 - New Definitions of Women's Sexual Dysfunction (Basson et al., 2003)
 - DSM-V to be published in 2013



- DSM-IV-TR
Sexual
Dysfunctions,
2000**
1. **Sexual Desire Disorders**
 - Hypoactive Sexual Desire
 - Sexual Aversion
 2. **Disorders of Sexual Arousal**
 - Female Sexual Arousal Disorder
 - Male Erectile Disorder
 3. **Disorders of Orgasm**
 - Female Orgasmic Disorder
 - Male Orgasmic Disorder
 - Premature Ejaculation
 4. **Sexual Pain Disorders**
 - Dyspareunia
 - Vaginismus

- ### Sexual Disorders: Diagnosis & Classification
- Must cause marked distress or interpersonal difficulty
 - **Specifiers:**
 - Lifelong (primary) vs. acquired (secondary)
 - Global vs. Situational
 - Gradual vs. Sudden onset
 - Differentiate if secondary to a medical or psychiatric condition
 - Physical disease
 - Substance abuse
 - Other Axis I disorder
 - Medication



- ### Laumann 2005
- Sexual problems among women and men aged 40-80y: Prevalence and correlates identified in the Global Study of Sexual Attitudes and Behaviors
- n = 29 countries
 - (sampled): n=13,882 women; n=13,618 men
 - (eligible*): n = 9,000 women; n = 11,205 men *based on having at least 1 intercourse in past year
 - During the last 12 months have you ever experienced any of the following for a period of 2 months or more when you:
 - Lacked interest in having sex
 - Were unable to reach climax (experience orgasm)
 - Reached climax (experienced orgasm) too quickly
 - Experienced physical pain during sex
 - Did not find sex pleasurable
 - Had trouble achieving or maintaining an erection (men)
 - Had trouble becoming adequately lubricated (women)
 - Answered yes/no

- ### If yes...
- Severity assessed with: "for each of these experiences, how often would you say this has occurred during the last 12 months?"
 - Occasionally / sometimes / frequently
 - "Occasionally" treated as "no problem" in analyses

- ### Correlates (predictors) assessed
- **Demographics:** age, education, financial problems,
 - **Health:** general health status, physical activity, vascular condition, depression, prostate disease, hysterectomy, smoking
 - **Relationships:** divorce in past 3 years, expected length of current relationship, are you exclusive?
 - **General satisfaction with life**
 - **Individual sexual behaviour:** sex & foreplay frequency
 - **Sexual practices:** frequency of thinking about sex?
 - **Sexual attitudes**
 - **Sexual beliefs:** do you think aging reduces sexual desire? Does your religion affect your sexuality?

Statistical Analyses

- Logistic regression (odds ratio)
 - = odds of having a particular problem compared to a reference group
- Possible range of odds ratios:
 - < 1 = less likely to have the problem
 - 1 = no difference in likelihood from reference group
 - > 1 = more likely to have the problem

Hypoactive Sexual Desire Disorder (HSDD) Laumann, 2005 findings

- Range: 25% (N Europe) to 43% (Mid East/ SE Asia)
- Belief that aging decreases desire (OR = 1.2-1.8)
- Depression (OR = 1.3 – 2.2)
- Low expectations about future of relationship (OR = 1.2 -3.1)

Evolving Definitions of HSDD

- Basson (2003): focus on responsive desire
- DSM-V proposal:
 - Merging sexual desire and arousal disorder
 - Not fantasizing is not considered a hypoactive desire disorder!
 - Polythetic criteria with cognitive and behavioural indices

• Sexual Desire Disorders

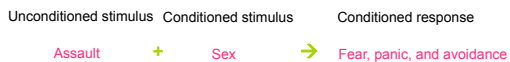
- Sexual Aversion Disorder (prevalence unknown)

Extreme aversion to and avoidance of all genital sexual contact with a partner

“a sexual phobia” characterized by revulsion and disgust

Causes of sexual aversion

- A classically conditioned response



Evolving Definitions of Sexual Aversion

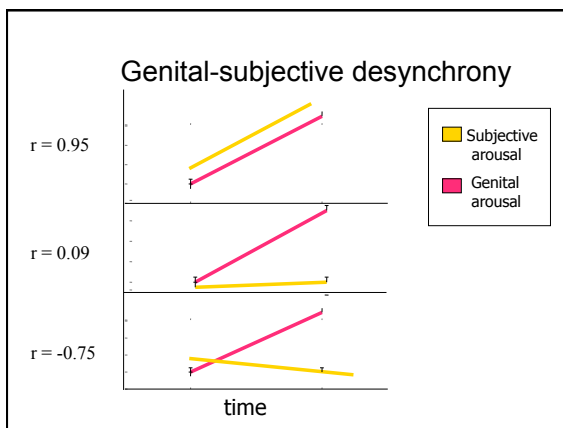
- DSM proposal:
 - Probably better placed as a Specific Phobia

Female Sexual Arousal Disorder (FSAD) Laumann, 2005 findings

- Range: 16.1% (S Europe) – 37.9% (E Asia)
- Age had a curvilinear relationship: age 50-59 have 2x likelihood as 40-49 but those aged 70-80 are no more likely than the youngest cohort
- Physical status (1.5 – 1.6)
- Depression (OR = 1.6 – 1.8)

Evolving Definitions of FSAD

- Basson (2003)
 - Subjective Sexual Arousal Disorder
 - Genital Sexual Arousal Disorder
 - Combined Sexual Arousal Disorder
- DSM-V proposal
 - Lubrication as the hallmark index is highly problematic
 - Proposed merging with Sexual Desire Disorder



Persistent Sexual Arousal Syndrome (PSAS)

- “sensations of insistent and persistent vaginal congestion and other physical signs of sexual arousal in the absence of any initial or deliberate attempt to invoke desire or arousal”
- Occasionally relieved by orgasm
- Distressing, intrusive, and unwanted
- A newly described syndrome (2001)
- Only case studies available, no large studies

Female Orgasmic Disorder (FOD) Laumann, 2005 findings

- Range: 17.7% (N Europe) – 41.2% (SE Asia)
- Poor health (OR = 1.5-1.6)
- Financial problems (OR = 1.8 – 2.8)
- Depression (OR = 1.6)
- Low expectations about future of relationship (OR = 3.7)

Evolving Definitions of FSAD

- Basson (2003)
 - Despite the self-report of high sexual arousal/ excitement, there is either lack of orgasm, markedly diminished intensity of orgasmic sensations or marked delay of orgasm from any kind of stimulation.
- DSM-V proposal
 - Include the criterion of reduced orgasmic sensations in addition to anorgasmia

Dyspareunia
Laumann, 2005 findings

- Range: 9% (N Europe) to 31.6% (E Asia)
- Younger age (OR < 1)
- Poor health (OR = 1 – 2.1)
- Infrequent sex (OR = 1 – 2.6)
- Low expectations about the future of the relationship (OR = 2.1 – 2.8)
- Belief in religion guiding sex (OR = 3.5 only in SE Asia)

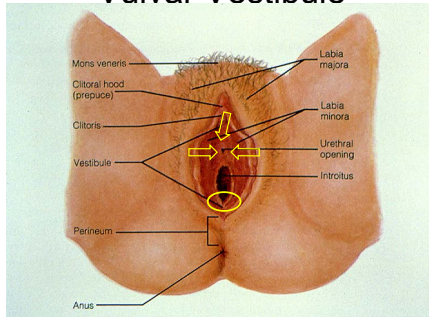
• **Sexual Pain Disorders**

➤ **Dyspareunia**

Persistent or recurrent pain with attempted or complete vaginal entry and/or penile vaginal intercourse.

Most common cause of dyspareunia:
Provoked Vestibulodynia
Prevalence: 12-15% of women

Vulvar Vestibule



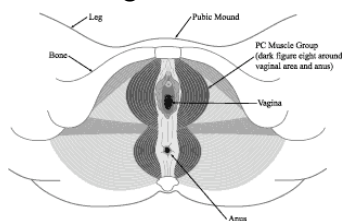
• **Sexual Pain Disorders**

➤ **Vaginismus**

Persistent or recurrent difficulties to allow vaginal entry of a penis, finger, and/or any object, despite the woman's expressed wish to do so. Often phobic avoidance and anticipation of pain.

Prevalence: 1-6%

Vaginismus



Evolving Definitions of Dyspareunia and vaginismus

➤ **DSM-V proposal**

➤ Merge dyspareunia and vaginismus into Genital pelvic pain penetration disorder

Sexual Arousal Disorder: Erectile Dysfunction

- Persistent or recurrent inability to attain, or to maintain until the completion of sexual activity, an adequate erection.

Laumann, 2005 findings

- Range: 12.9% (S Europe) – 28.1% (SE Asia)
- Age (OR = 2.7 – 6.9)
- Having a vascular condition (OR = 1.6-4.1)
- Prostate disease (OR = 1.8 – 2)
- Financial problems (OR = 2.2 – 3.1)
- Depression (OR = 1.9)
- Being in an uncommitted relationship (OR = 2.2 – 6.7)

Bicycle riding and ED

- Theory: pressure on pudendal artery in the glans penis can lead to erectile dysfunction
- Dettori, 2004
 - 463 cyclists studied before and after a 320km race
 - None had ED before the race:
 - 4.2% had ED 1 week later
 - 1.8% had ED 1 month later
- Decreases risk of ED by:
 - riding a road bicycle instead of a mountain bicycle
 - Keep handlebar height **higher** than saddle height
 - Use a saddle with a cutout

Orgasmic Disorders: Premature ejaculation

- Premature Ejaculation
 - Persistent or recurrent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes it. The clinician must take into account factors that affect duration of the excitement phase, such as **age, novelty** of the sexual partner or situation, and recent **frequency** of sexual activity.
- Also known as Rapid Ejaculation
- Most prevalent sexual dysfunction in men

Laumann, 2005 findings

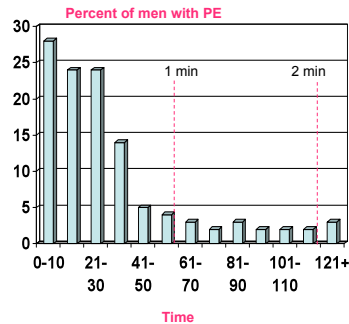
- Range: 12.4% (Mid East) – 30.5% (SE Asia)
- Vascular disease (OR = 2)
- Low education (Central/S America OR = 2.3-2.6 and Middle East OR = 2.3)
- Financial problems (OR = 1.8)
- Infrequent sex (OR = 2)

Who defines early?

- Kinsey believed this was not a sexual dysfunction since most of their sample ejaculated within 2 minutes of penetration.
- Recently, researchers have attempted to quantify what is “early”. In large studies, the time take to ejaculate varies widely from 7-14 min. cross country differences:
 - Germany 7 min
 - US 13.6 min
 - England, France, Italy 9.6 min

Current operationalization

"ejaculation that is less than 1 minute in over 90% of episodes of sexual intercourse, independent of age and duration of relationship"



Evolving Definitions of Premature Ejaculation

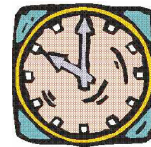
- Proposal for DSM-V:
 - Ejaculation must take place within 1 minute of penetration

Ejaculation Threshold Hypothesis

- Low levels of serotonin
- Less activation at the 5-HT_{2C} receptor
- Lowers the ejaculatory set-point
- Antidepressants work to raise serotonin and therefore the set-point

The stop-watch method

- Used to quantify the IELT (intravaginal ejaculatory latency time)
- Can using the stop watch increase anxiety?



Orgasmic Disorder: Delayed Ejaculation

- Persistent or recurrent delay in, or absence of, orgasm following a normal sexual excitement phase during sexual activity that the clinician, taking into account the person's age, judges to be adequate in focus, intensity, and duration.

Laumann, 2005 findings

- Range: 9.1% (N Europe) – 21% (SE Asia)
- Age (OR = 3.4 – 4.9)
- Poor overall health (OR = 1.6 – 2.5)
- Prostate disease (OR = 2.1 – 7)
- Belief that aging reduces sexual energy (OR = 2)
- Depression (OR = 2.4 – 3.1)
- Worried about future of relationship (Mid East OR = 62)

Is this really a problem?

- Female partners of men who sustain prolonged erection report greater sexual satisfaction
- YES
 - Associated with low self-confidence in men
 - Women report pain and fear that partner is unfaithful

Low desire in men

- Sexual desire in men manifests in 3 ways:
 - Psychologically through thoughts, fantasies, and dreams
 - Behaviourally in sexual activity with a partner
 - Behaviourally through sexual activity with oneself
- 18% of men in the 18-24 age group reported lack of desire in the past year

Laumann, 2005 findings

- Range: 12.5% (N Europe) – 28% (SE Asia)
- Age (OR = 2.4 – 10.6)
- Poor overall health (OR = 1.6 – 2)
- Belief that aging reduces sexual energy (OR = 2.3)
- Depression (OR = 2.2 – 2.9)
- Infrequent sexual activity (OR = 3.6 – 6.7)

Misdirected sexual desire in gay men

- Can occur in the case of "closeted" gay men and women.
- While actual sexual desire may be quite high for members of their appropriate sexual orientation, many people ashamed or insecure about their sexuality will still force themselves to desire the wrong sex.

Sexual pain in men

- Can take place with erection, intromission, thrusting, or ejaculation
- Likely medical etiologies:
 - PROSTATITIS = inflammation of the prostate
 - Allergic reaction to spermicidal creams
 - Poor hygiene in uncircumcised man

Laumann, 2005 findings

- Range: 2.9% (N Europe) to 12% (SE Asia)
- No correlates presented

Sexual Pain in men

Priapism

- Persistent abnormal erection of the penis, accompanied by pain and tenderness
 - Commonly associated with antipsychotic use
 - Can be a side effect of erectile treatment (injections)

Peyronie's disease

- Curvature of the penis associated with plaques in corpus cavernosa
 - Affects 1% of men from age 40-60

Who is qualified to treat sexual dysfunctions?

- In Canada, no special certification for being a sex therapist
 - Registered clinical counsellor
 - Registered psychologist
 - Psychiatrist
 - Family physician
 - Obstetrician/gynaecologist
 - Urologist
 - Endocrinologist
- USA: board certification from the American Association of Sex Educators, counsellors, and therapists

Psychological Treatment: Sensate Focus

- Developed by Masters and Johnson
- Stage 1
 - Touch body (no genitals or breast) with goal of increasing awareness
 - Limited touching
 - Ignore arousal
- Stage 2
 - Touching all over
 - “receiver” guides hand of “toucher”

Sensate Focus (cont).

- Stage 3
 - Mutual touching that feels natural
 - Begin to shift attention away from own body onto partner's
 - Intercourse is still off limits
- Subsequent stages
 - Increase genital touching with goal of arousal
 - Proceed to intercourse when ready

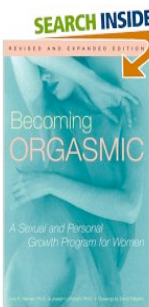
Outcomes from Masters and Johnson therapy

- Therapy 2-3 times/week
- Outcome assessed by 1 item by clinician
- Failure rates very low (maximum of 20%)
- Relapse rates 5%

Problems with Masters and Johnson treatment

- Efficacy has never been replicated
- Methodological problems in attempting to study effects of psychological therapy:
 - Small sample sizes
 - Failure to include control groups
 - Lacking randomization
 - Unclear designation of diagnosis
 - No long-term data
 - Incomplete description of therapy technique

Guided Masturbation



- “Becoming Orgasmic” by Heiman and LoPiccolo
- – 88-90% efficacy
 - Education
 - Exploratory touch
 - Progressive muscle relaxation
 - Body Awareness/Mindfulness
 - Kegels
 - Touching for pleasure


Cognitive Behavioral Therapy

- Combination of cognitive therapy (i.e., challenging maladaptive sexual beliefs), behavioural therapy (i.e., exercises), and education
 - Success rate 45-86% for women

Couple Therapy

- Communication training
- Marital therapy
- Problem solving
- Assertiveness training
- Examining the “system” – i.e., how does the dysfunction keep the relationship balanced?

Physical Treatments: Dilators




Used for:

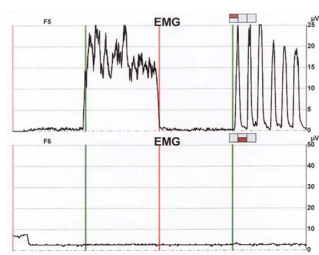
- vaginismus
- dyspareunia

EROS Clitoral Therapy Device™

- Only FDA-approved treatment



Biofeedback and physiotherapy for vaginismus and dyspareunia



Woman inserts a sEMG into the vagina and is asked to contract the PC muscles (i.e., do a Kegel exercise) and use the visual feedback to attempt control over her pelvic floor muscles

Biofeedback
Can be combined with physiotherapy

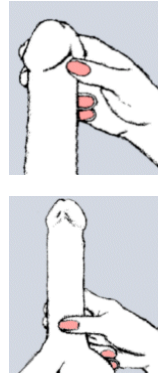
Vacuum Erection Device



Excellent alternative for men who cannot tolerate medications

- Tube placed over flaccid penis
- Automatic or manual pump draws blood into penis
- Rubber band placed over base of erect penis to maintain erection

Stop-start technique & Squeeze technique



- Partner manually stimulates until erection
- Either stop stimulation or "squeeze" the prepuce (muscle under the head of the penis)
- Extends foreplay and teaches ejaculatory control

Intracavernosal injections for erectile dysfunction

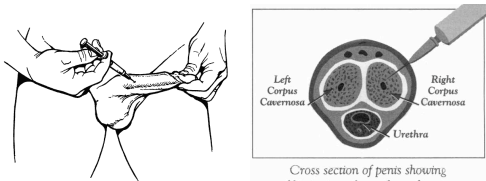
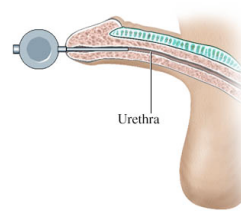


FIGURE 11.1. Illustration of intracavernosal injection.

Cross section of penis showing self-injection of erectile medication.

Alprostadil (prostaglandin E1) – no sexual stimulation is needed to relax muscles

Transurethral therapy



MUSE = medical urethral system for erection

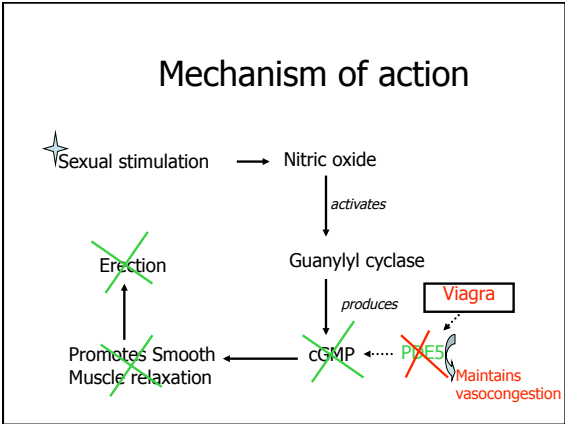
Oral treatments for ED

- Sildenafil (**Viagra**)
 - 4 hour half-life
 - 1hr before planned sexual activity
 - Side effects: ~10% headache, flushing, dyspepsia, nasal congestion, visual disturbances
- Vardenafil (**Levitra**)
 - 1 hr before planned sexual activity
 - 4-6 hour half-life
- Tadalafil (**Cialis**)
 - 30 min before sexual activity
 - 17 hour half-life
 - Fewer side effects (no food absorption effect, reduced visual disturbances)

Mechanisms of action

- These medications DO NOT create erections

Mechanism of action



Benefits of combination therapy

- Many men discontinue oral medications for ED despite their high efficacy
- Resuming erections for some couples can disrupt the “couple dynamic” that adjusted to the sexual dysfunction
- It emphasizes to men that sex is a bio-psycho-social experience

SSRIs for premature ejaculation

- Selective Serotonin Reuptake Inhibitors (antidepressants) which increase level of serotonin
- Based on the low serotonin hypothesis
- *Has replaced psychological therapy as the first-line treatment*

Hormones for Low Desire

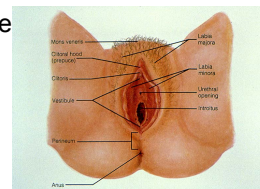
- In men:
 - Effective for low desire in hypogonadal men
- In women:
 - **Investigational Only!**
 - Very marked placebo response!
 - Side effects: cardiac symptoms, acne, hirsutism, unknown effects on breast cancer
 - 6 recent large randomized controlled trials showed improved desire and satisfaction in surgically menopausal women

Viagra for women??

- Erectile tissue in the clitoris
- 4 studies showing a benefit
- At least 3 showing no benefit
- Pfizer no longer is funding Viagra studies in women

Surgery: Vestibulectomy

- Close to 100% cure rates
- Excision of the hymen and sensitive areas of vestibule



Local Treatment

- Approx a dozen sex therapists throughout Lower Mainland
- BC Centre for Sexual Medicine (MSP covered)