Optimizing Management of Hypersexuality and Sexual Preoccupation Through the Combined Use of Medications and Behavioral Techniques

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The History

- Benjamin Rush 1812
  - "although he feels disgusted with his venereal propensities, he cannot resist them"
- Kraft-Ebbing 1886
  - "…an increased sexual appetite to such an extent that permeates all his thoughts and feelings, allowing no other aims in life, tumultuously, and in a rut-like fashion demanding gratification and resolving itself into an impulsive, insatiable, succession of sexual enjoyments. This pathological sexuality is a dreadful scourge for its victim, for he is in constant danger of violating the laws of the state and of morality, of loosing his honor, his freedom and even his life.
- Erotomania – DSM 1952
- Nymphomania and Don Juanism, DSM-III

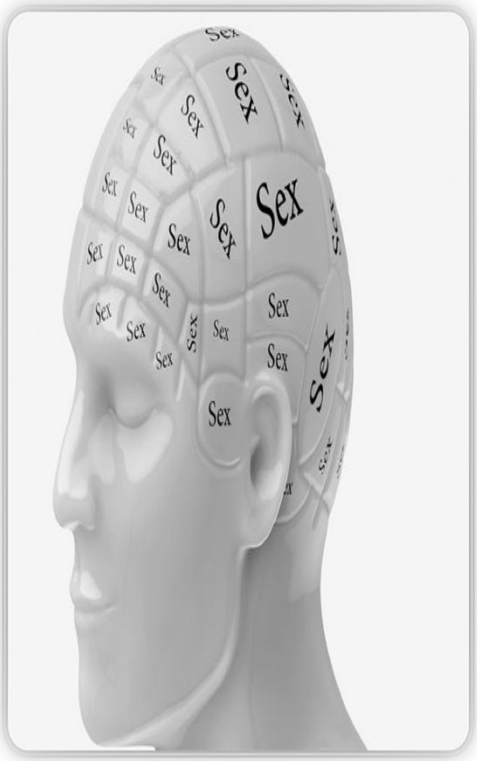
Out of Control Sexual Behavior Syndrome X

- Vanderbilt Meeting in 2000 (2 ½ Days)
  - Obsessive Compulsive Disorder
  - Bi-Polar Spectrum Disorder
  - Intimacy Disorder
  - Impulse Control Disorder (Black)
  - Sexual Compulsivity (Coleman)
  - Sexual Dependency (Berlin)
  - Non Paraphilic Related Disorder (Kafka)
  - Sexual Addiction (Carnes)
  - Paul Fedoroff/Rory Reid/Doug Epperson
- DSM 5
  - Hypersexuality (Kafka 2010)

Lack of agreement in the literature on the features of problematic out of control sexual behavior have made it impossible to determine whether researchers are reporting on a similar problem or whether there are multiple types of hypersexuality (Marshall & Briken 2010).

What is Hypersexuality

- It is a biopsychosocialsexual Disorder
  - **Bio,** Relationship between serotonin and dopamine and other chemicals in the brain, brain pathways and/or medical conditions
  - **Psycho,** Co-morbidity mood disorders, impulse control disorder, ADHD, PTSD
  - **Social,** Beliefs about intimacy/relationships, faulty core beliefs (eg., I am bad), shame
  - **Sexual,** sex as coping, sexual risk taking, early sexual experiences



Sexual Preoccupation Hypersexuality

(Mann et al 2010)

- Abnormally intense interest in sex that dominates psychological functioning
- Predictor of Sexual Recidivism
  - Significant
  - Sex as Coping
  - Sexual Proccupation

Hypersexuality

- Kafka (2010) (DSM 5 Proposal)
  - A distinct sexual desire disorder
  - Characterized by increased frequency and intensity of sexually motivated fantasies, arousal, urges, and behavior in association with an impulsivity component
  - Typically associated with vulnerability to depression and anxiety and the use of sexual behavior in response to depression, anxiety and/or life stressors
  - A host of co-morbid diagnoses

A. Period of 6 months/Recurrent and Intense/At Least 3

Time consumed in association with the frequency and intensity of sexual fantasies, urges of behaviors interferes with other important (non-sexual) goals, activities, and obligations **(Interferes)**

Repetitively engaging in sexual fantasies, urges, or behavior in response to dysphoric mood states (eg., anxious, depressed, bored, irritable) **(Frequency/Coping)**

Repetitively engaging in sexual fantasies, urges or behaviors in response to stressful life events **(Frequency/Coping)**

Repetitive but unsuccessful efforts to control or significantly reduce these sexual fantasies, urges, or behaviors. **(Control)**

B. There is clinically significant personal distress or impairment in social, occupational or other important areas of functioning associated with the frequency, and intense of these sexual fantasies, urges, or behavior. **(Consequences)**

C. These sexual fantasies, urges, or behaviors are not due to the direct physiological effect of an exogenous substance (eg. a drug of abuse or a medication), a general medication or neurological conditions, or predominately, or exclusively in association with a paraphilic disorder **(Not Exclusively Due to Other...)**

Not in DSM however will be a part of ICD 11 (January 2022)

Impulse Control Disorder

Compulsive Sexual Behavior

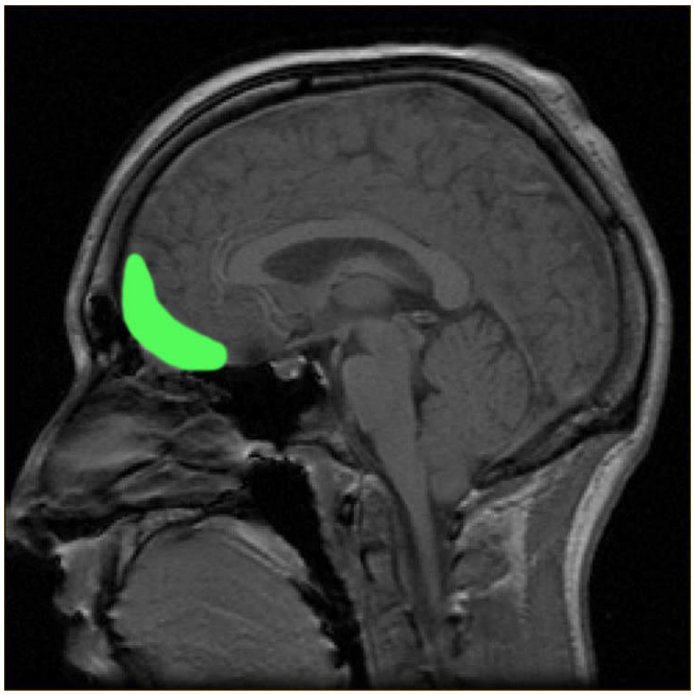
Also known as sex addiction/hypersexuality

Manifestations

- Behaviorally
  - Non-Paraphilic Behaviors (“Normal”)
    - Adult Pornography Use (Offline and/or Online)
    - Masturbation
    - Sexual Chatting/Strip Clubs/Prostitution
    - Frequent Sexual Activity with Others
  - Paraphilias (“Atypical”)
    - Fetishes
    - Exposing, Frottage, Voyeurism
    - Viewing/Downloading Child Sexual Abuse Images (CP)
    - Other Paraphilias

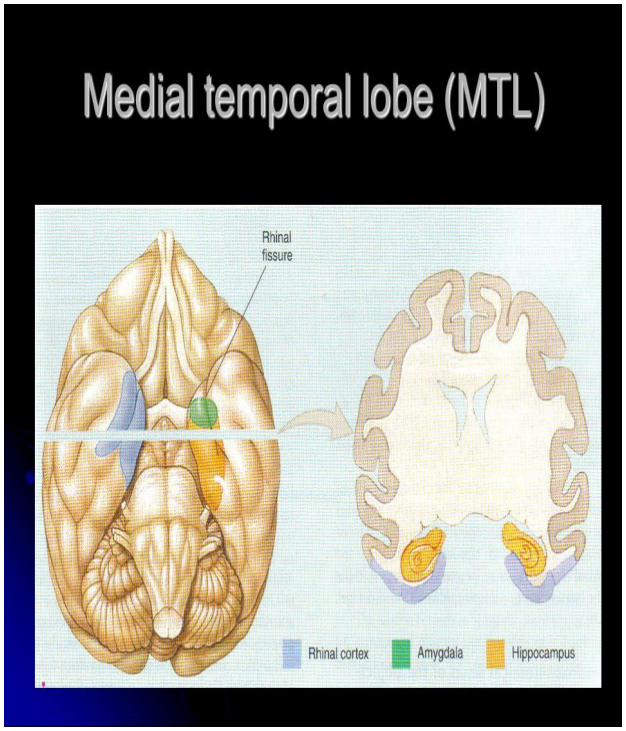
Brain lesions associated with hypersexuality

Frontal lobe lesions

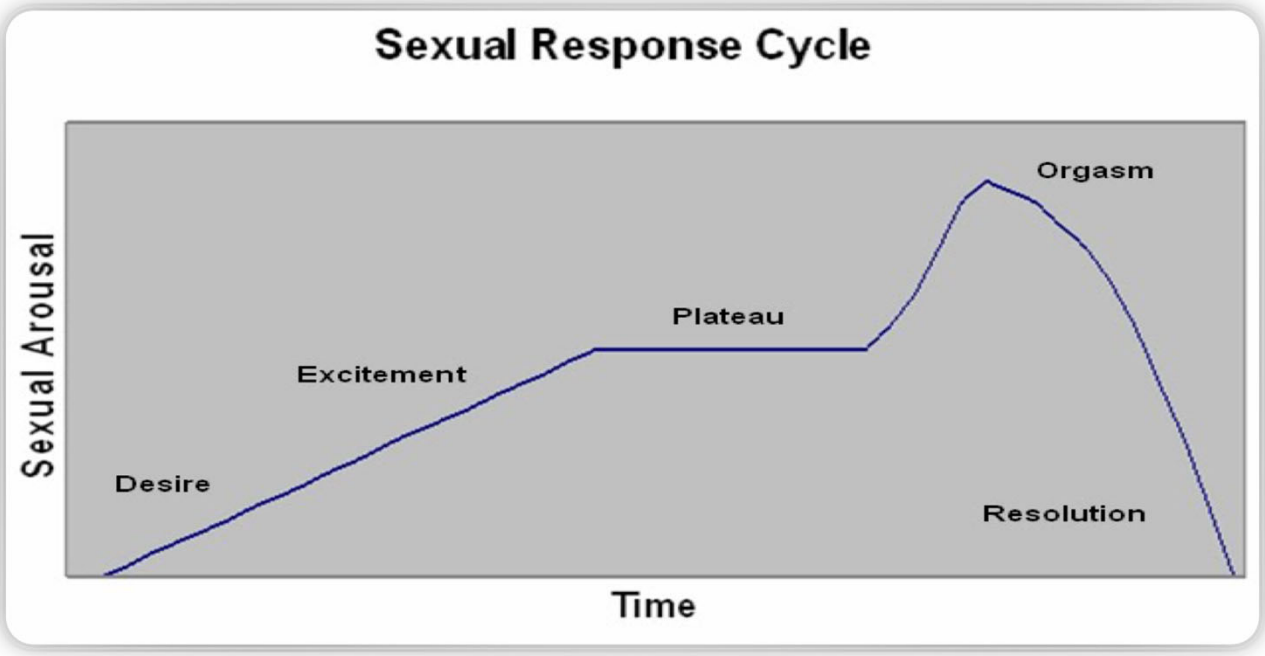


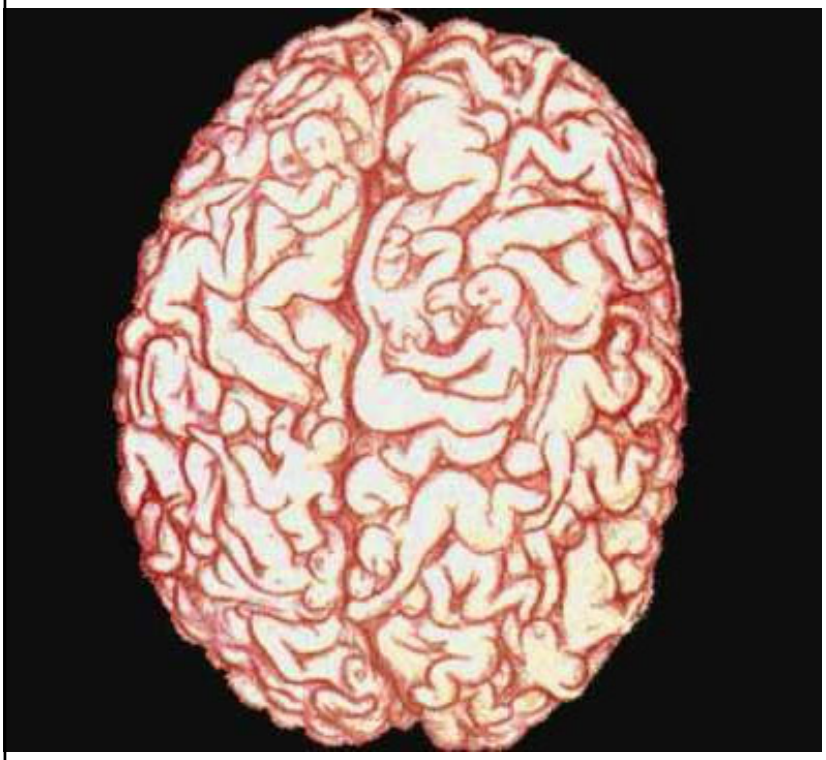
Lesions of the basal frontal lobe is known to be associated with sexual disinhibition and public exhibitionism

Kluver Bucy Syndrome- Bilateral temporal lobe dysfunction



Understanding the Physiology of Sex


Sexual Response Cycle
Sexual Arousal
Desire
Excitement
Plateau
Orgasm
Resolution
Time



Sexual Desire

- No objective criteria to measure desire
- Inferred from self-reported sexual thoughts/fantasies / wishes/ experiences

Sexual arousal

- Depends on experiential, genetic and neurochemistry
- Subjective arousal -feeling of sexual excitement
- Physiological arousal
  - Genital vasocongestion
  - Dependent on signal input from CNS and PNS
  - Complex interplay between
    - Neurotransmitters
    - Vasoactive agents
    - Endocrine factors (hormones)

Hormones involved in Sex

- Testosterone
- Estradiol
- Oxytocin
- Prolactin

Neurotransmitters

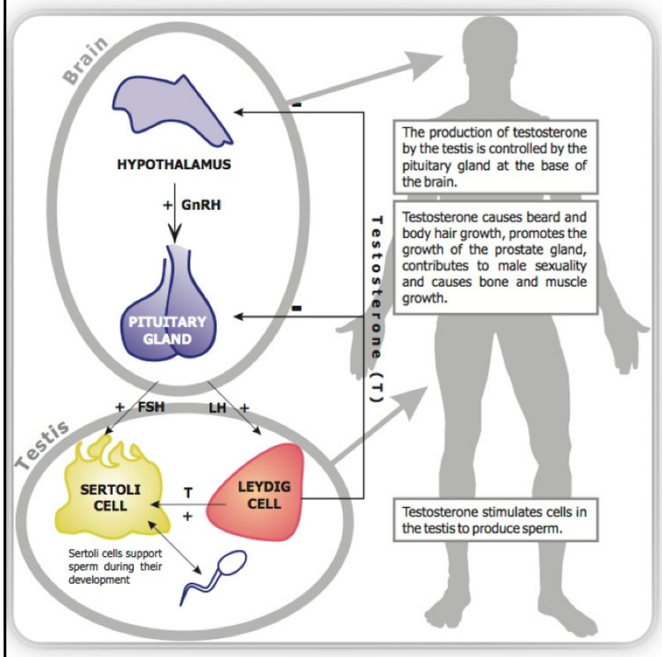
- Dopamine
- Serotonin
- Noradrenaline
- Opioids

Testosterone

- Plays a crucial role in hormonal regulation of male sexuality
- Influences sexual thoughts, desire,motivation, sexual arousal/ erection and ejaculation
- Increased sexual activity increases testosterone

Testosterone

- **Modulates cognitive and emotional functions**
- **Modulates various neurotransmitter systems**
  - **Dopaminergic**
  - **Serotoninergic**
  - **Cholinergic**
- **Affect functioning of the cardiovascular, immune and musculoskeletal system**



Testosterone production

- Secretion by Leydig cells/ testes
  - 90%
- Synthesized from cholesterol
  - 10%
- Metabolized to Dihydrotestosterone (DHT)
- Only 2% is free testosterone

Testosterone (T) level (Jordan 2011)

- During puberty T level increases
- T levels decrease in older age
- Physiological range of T level- 3-12ng/ml (300-1200 ng/dl)
- Much less T level is sufficient to maintain normal sexual function

Testosterone (T) Level (Jordan 2011)

- Salient sexual stimuli/ erotic movies- increase T levels
- Sexual activity/ masturbation –increase T levels
- Hypersexual behavior is not associated with higher T levels
- With testosterone withdrawal (within 3-4 weeks) reduction in level of sexual interest/ desire is noted.

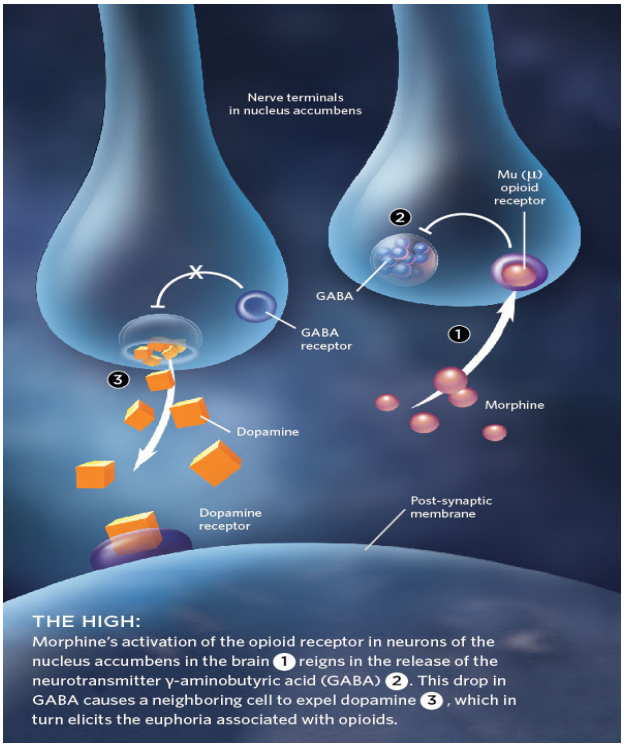
Prolactin and sex

- Increased prolactin levels is associated with decrease in sexual interest
- Use of dopamine agonist (Bromocriptine)- decrease prolactin- restore sexual interest
- Effect of prolactin on sex
  - Is it by its direct central or peripheral influence?
  - Is it through its relationship with dopamine?
- After orgasm, prolactin levels increase
  - Role in post-orgasmic refractory period

Dopamine and Sex

- Dopamine agonists (Levodopa) increase sexual desire and sexual functioning (used to treat Erectile Dysfunction)
- Cocaine increases dopamine in synapses
  - Increases sexual pleasure in low doses
  - Chronic use decreases sexual desire
  - In high doses, due to vasoconstriction, decreases erection

Dopamine and endogenous opioids



- Repeated orgasm- increased opioids
- Opioids use the dopamine reward system
- Opioid antagonist- Naltrexone can prevent this response

Serotonin and Sexual function

- Serotonin decreases sexual desire
- Serotonin impairs ejaculation
- Increase latency to ejaculation

Decreases obsessive thoughts

Treatment of Hypersexuality

Treatment

- Client Education
  - The Disorder
    - Brain Chemistry
      - » Importance of Medication
    - Life Egg/Your Soup
    - Stages of Change
  - Models of Understanding Behavior
    - 7 Desires
    - Iceberg
    - Hermes' Web

YOUSOUP Recipe

version2 by it's pronounced METROsexual .com

Ingredients:

base & broth
- race
- ethnicity
- gender
- sexuality

early additions
- socioeconomic status
- geographic location
- education
- family structure

optional
- hobbies & passions
- religion & faith
- career
- political beliefs

secret ingredients
- personal experiences
- changes to other ingredients
- hidden identities
- misperception of ingredients

Procedure:

Combine base ingredients to create broth and bring to a boil. Toss in early additions and simmer over low heat for many, many years, adding optional and secret ingredients to taste. Makes one You.

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Stages of Change

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7 Desires of the Heart

(Developed by Deb and Mark Laaser)

1. To be heard and understood.

2. To be affirmed.

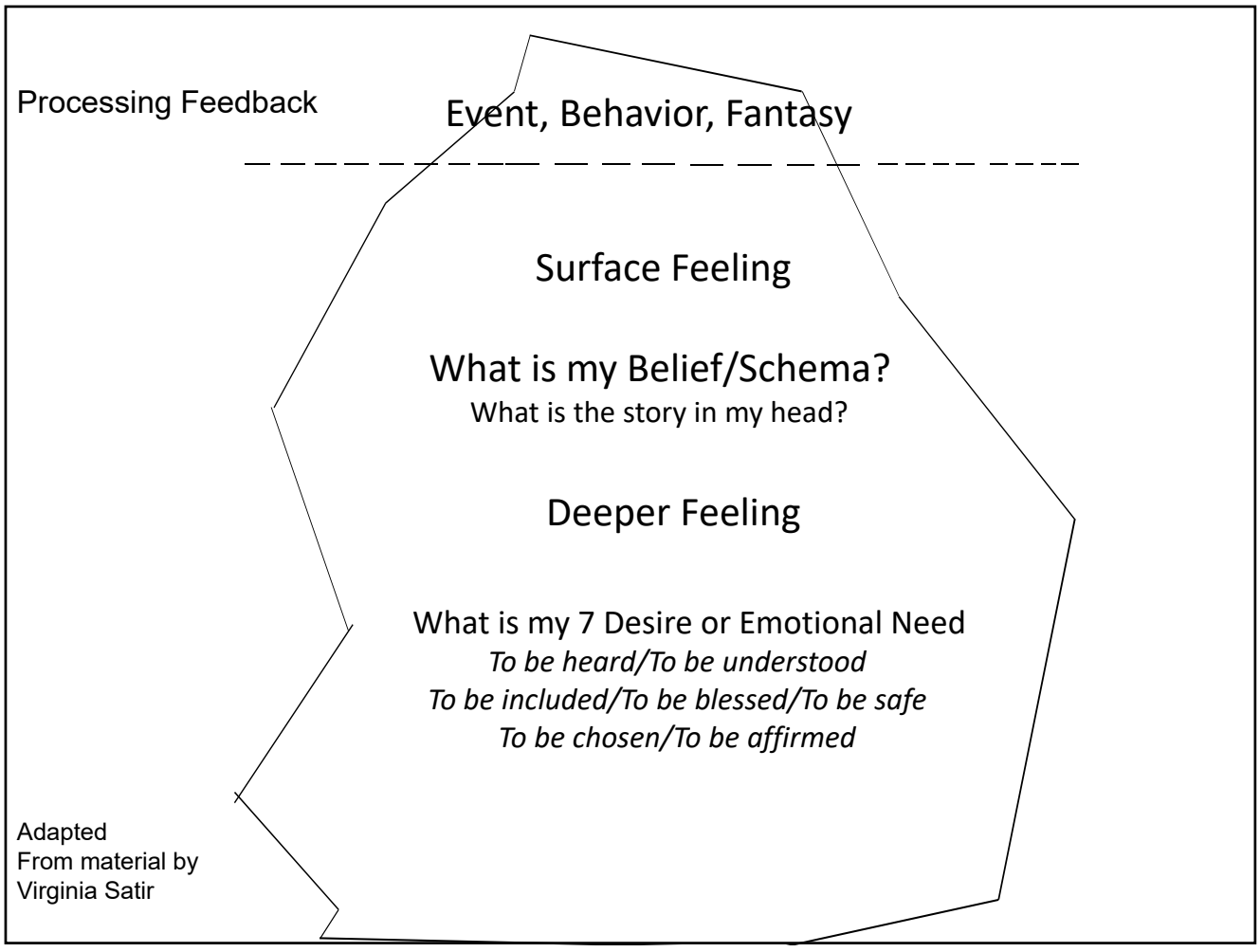
3. To be blessed.

4. To be touched.

5. To be safe.

6. To be chosen.

7. To be included.


Processing Feedback
Event, Behavior, Fantasy
Surface Feeling
What is my Belief/Schema?
What is the story in my head?
Deeper Feeling
What is my 7 Desire or Emotional Need
To be heard/To be understood
To be included/To be blessed/To be safe
To be chosen/To be affirmed
Adapted
From material by
Virginia Satir

Treatment

- Models of Healthy Sexuality
  - Developing healthy sexuality is the ultimate goal
  - Individualized Sexual Health Plan
  - Models of Healthy Sexuality
    - CERTS – Wendy Maltz
    - World Sexual Health Model
    - Circle of Sexuality – Dennis Dailey

Treatment

- Behavioral Plans
  - Charting, Charting, Charting
    - Sexual Awareness Chart
  - Abstinence Contracts
    - Limited Amount of Time/Not About Punishment
  - Sexual Sobriety Plan
- Grieving the Loss
  - Grieving Activities

Treatment

- Calming The Brain
  - Mindfulness/Meditation
    - Part of the "third wave" of CBT
      - Significant Research
    - http://palousemindfulness.com
    - Sitting Still Like a Frog
    - Mindfulness-Bases Relapse Prevention for Addictive Behaviors (Bowen, Chawal & Marlatt)

Treatment

- Meditation MRI Research
  - Averaged less than hour /8 wks
  - Increased gray matter/activity-Prefrontal Cortex
    - Executive functions (planning/decisions/judgment)
  - Increased gray matter and activity in Insula
    - Integrates sensation and emotions
    - Processes emotions like empathy and love
    - Essential for the capacity of self awareness
  - Increase activity in left frontal regions
    - Mood Lifter

Treatment

Mindfulness (Juliette Adams)

The practice of mindfulness helps us to recognize and observe our thought patterns. Practitioners develop the ability to recognize when thoughts arise, and observe them in a detached manner, without the need to become involved in them (thus not triggering an emotional or "automatic" reaction).

Treatment

Mindfulness (Juliette Adams)

By regularly practicing mindfulness, we develop strong neural pathways connected which makes it easier for us to recognize when thoughts arise. This can help us identify the source of a strong emotion as it is triggered and choose more effective ways to respond.

(Harvard Study) (UK Study)

Treatment

Mindfulness (Juliette Adams)

Once you learn to become “an impartial spectator”, you can recognize old, habitual patterns that no longer serve you well, and reshape those patterns in new directions.

While practicing mindfulness may be uncomfortable at first, it has the capability to rewire our thinking patterns. This makes the new ways of thinking (that previously felt unfamiliar or uncomfortable) become habitual.

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Treatment

- Calming The Brain
  - Imagery
    - Urge Surfing
    - Anchor
    - Mountain
  - Exercise/Music/Art
  - EMDR

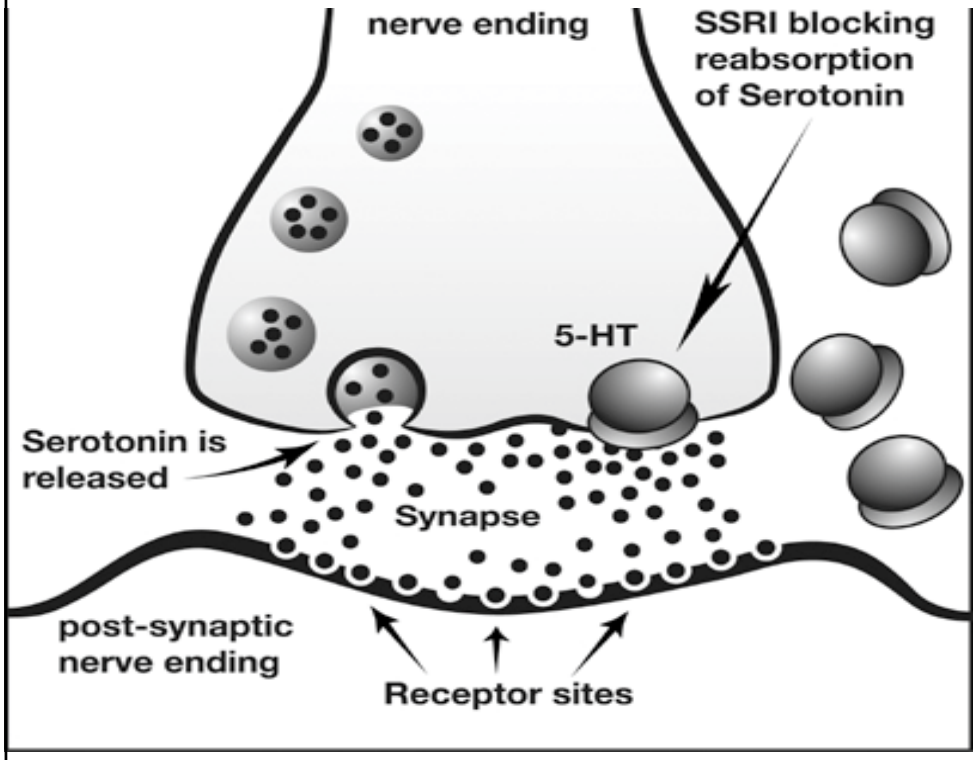
Treatment

- Finding Peer Support
  - Don’t throw the baby out with the bathwater
  - “S” Groups
    - SA
    - SAA
    - SCA
    - SLAA

MEDICATION, MEDICATION, MEDICATION

Medications for Management of Hypersexuality

Selective Serotoninergic Reuptake Inhibitors (SSRIs)



Mechanism of action

- Increasing serotonin in the synapses

Use of SSRIS In Treating Hypersexuality

- Several open label studies have shown to decrease sexual preoccupation , sexual compulsion and sexual urges with SSRI
- Mechanism of action
  - Decrease in sexual obsessive thoughts
  - Increased latency to ejaculation
  - Disruption of the sexual pleasure response
  - Decreased impulsivity

Use of Naltrexone in sexual compulsion

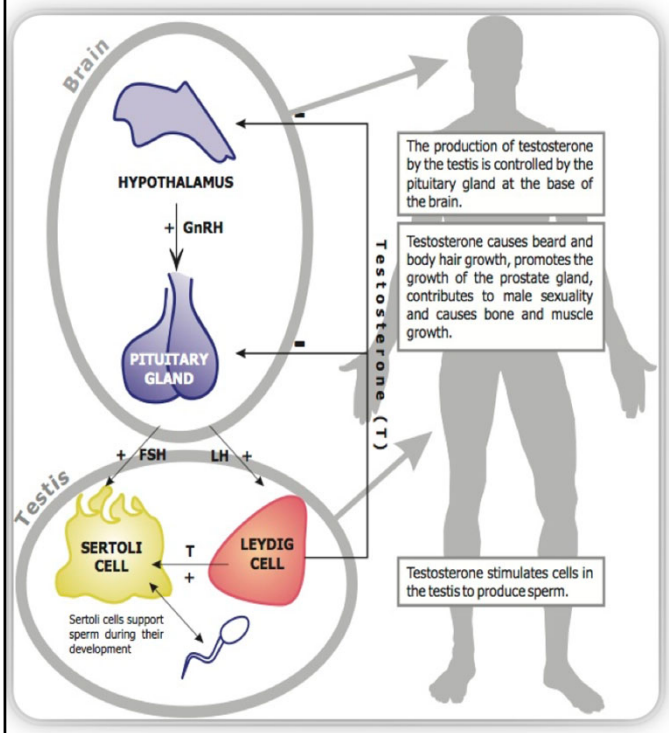
- Cases in the literature – decreased sexual compulsion after use of naltrexone
- Naltrexone- dosage – 50 mgs per day
- Daily dosing
- Long acting Naltrexone is available
- Liver function needs to be monitored
- Can be used in combination with SSRIs

Anti-androgen medications

- Work by decreasing the level of testosterone
- Medications
  - Medroxyprogesterone acetate (MPA)- Depot Provera
  - Gonadotropin releasing hormone (GnRH) agonists
    - Leuprolide – Initially causes T flare; then in 2 to 4 weeks ↓ T level to castration level
  - Gonadotropin releasing hormone (GnRH) antagonist
    - Degarelix- ↓ T level to castration level within 3 days without T flare

Medroxyprogesterone acetate (MPA)

- Inhibits GnRH secretion in hypothalamus
- Decreases T levels within 2 weeks
- Dosage to treat hypersexuality variable
  - 100 mg to 500mg daily orally (50 mgs to 200 mgs/day in some studies)
  - 100mg IM monthly to 600mg IM weekly
- Case studies of effective control of hypersexual behaviors in patients with dementia



Leuprolide- Gonadotropin releasing hormone agonist

- Initially increased Testosterone level- 1-2 weeks after starting treatment
- Antiandrogen med prescribed during the 1-2 weeks- Flutamide
- With continuous treatment- downregulates the GnRH receptors in the pituitary
- Decreases T level to castration level in 2 to 4 weeks

Starting leuprolide

- Check Testosterone level, FSH level, LH Level, monthly until suppressed, then Q 6 months
- Check Complete Blood Count and Q 6 months
- Check blood urea and creatinine level and every 6 months
- EKG- once a year
- Bone density scan – once a year
- Give test dose of 1mg leuprolide subcutaneously for allergic reaction

Dosage of leuprolide

- Lupron and Eligard- Different brand names of leuprolide acetate (Lupron- IM depot; Eligard- SC)
- Dosage:
  - 7.5 mg IM/ SC monthly
  - 22.5 mg IM/ SC given Q 3months
  - 30 mg IM/SC given Q 4 months
  - 45 mg IM/SC given Q 6 months
- Takes about 3 months to get the T level to castration level
- Castration T level- 20 to 50 ng/ dl (0.2- 0.5 ng/ ml)

Effects on sex after Leuprolide

- Self-reported
  - Decrease in sexual thoughts/ fantasies
  - Decrease in sexual motivation
  - Some describe being asexual

Side-effects of leuprolide

- Weight gain
- Osteoporosis
- Monitor for renal dysfunction
- Gynecomastia
- Hot flushes
- Depressive moods

Degarelix- GnRH Antagonist

- Immediate onset of action
- Swedish study published in JAMA (April 2020)
  - 2 randomized control studies 2016 to 2019
  - 52 male participants – pedophilic disorder
  - 25 Degarelix ; 26 placebo
  - 2 subcutaneous inj of 120 mg of Degarelix
  - Compared at 2 weeks and 10 weeks
  - Decreased risk scores for pedophilic disorder and sexual preoccupation
  - 58% of degarelix group denied sexual interest in children 10 weeks

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Medication plan

- Start with a SSRI / titrate dose / switch
- Add Naltrexone
- Try dopamine antagonist, if other psychiatric conditions warranting anti psychotic medications are present
- MPA may be an option for dementia related sexual disinhibition
- For high risk highly sexually preoccupied individual, discuss the pros and cons of being on Leuprolide

What is the right time to consider medications?

- Patient has some insight into his sexual preoccupation/ hypersexuality and its impact on his life
- If sex remains the predominant coping strategy, need to work on alternative healthy coping strategies before adding medications
- Need a baseline of sexual behavior monitoring log (preferably at least several months) before starting meds

Right time for meds

- Has capacity to weigh risk and benefits
- Able to give informed consent
- Able to understand and accept the possibility of becoming hyposexual or asexual (anti-androgen meds)
- Accept the possibility that they may need to take it for “a very long time”.

When can they come off medications?

- A joint decision between the doctor and the patient
- A gradual taper preferable with assessment of sexual thoughts and behaviors
- Ability to develop significant lifestyle changes and management skills (prosocial skills) helps to stay on path even when weaned off medications
- Enhancing and practicing mindfulness skills
- Ability to have a trusting relationship with the treatment team

In Summary

- A combination of therapy and medications work the best
- While patient is on medications, he needs to continue to enhance his therapeutic skills and life skills
- Medications can be used short-term or long-term based on patient's risk management plan

Thank you!

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Remember:
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