



Substance Use Disorder and Posttraumatic Stress Disorder in Women of Reproductive Age

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2020

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Disclosures

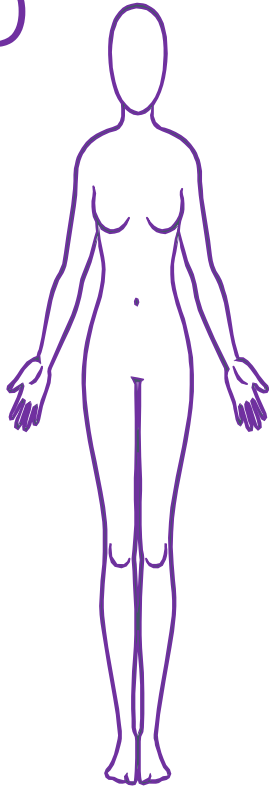
I do not have any relevant financial relationship
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Objectives

- Discuss the etiology of co-occurring PTSD and SUD in women.
- Discuss screening for and diagnosis of co-occurring PTSD and SUD in women.
- Describe best treatment modalities for co-occurring PTSD and SUD in women

Comorbid SUD & PTSD

SUD



- ~50% seeking SUD treatment meet criteria for current PTSD.

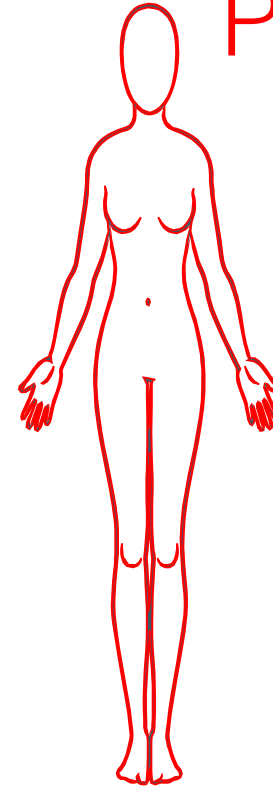
(Berenz, Coffey 2013)

- 30-90% of women in SUD Tx experience physical/sexual abuse

(Finkelstein et. al. national trauma consortium, Parks and Miller, 1997)

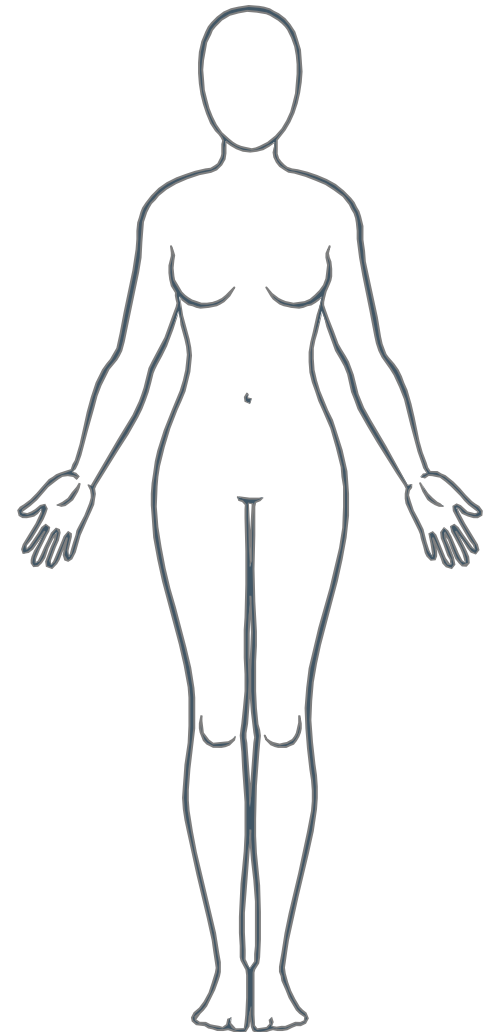
- co-occurring PTSD-SUD = poorer treatment outcomes (Berenz, Coffey 2013)

PTSD



Case

- 23 year old female with history of **Hepatitis C** and **Borderline Personality Disorder**, chief complaint: Fatigue, anxiety and insomnia.
- Angry to “**deal with a *male* nurse**” in waiting room
- Found out she 8 weeks pregnant (G4P111)
- Discontinued all psych medications 4 weeks ago
- Drinks 2-3 glasses of wine / night
- No illicit drugs
- Yes. **Marijuana**. Yes.
- Utox positive for **Fentanyl**? Ok. Yes.

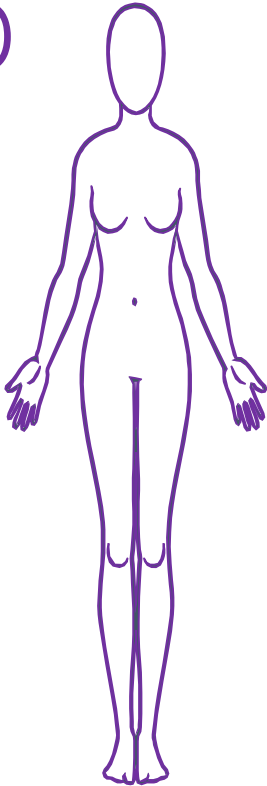


Approach to Diagnosis & Treatment:

- Integrated Care with “parallel treatment” of both disorders
- Biological (family history, genetics, other physical ailments, etc.)
- Psychological (cogn. & behav. routines, coping mech. etc)
- Social- Environmental (spouse, dog, car, finances, etc.)

Comorbid SUD & Trauma

SUD

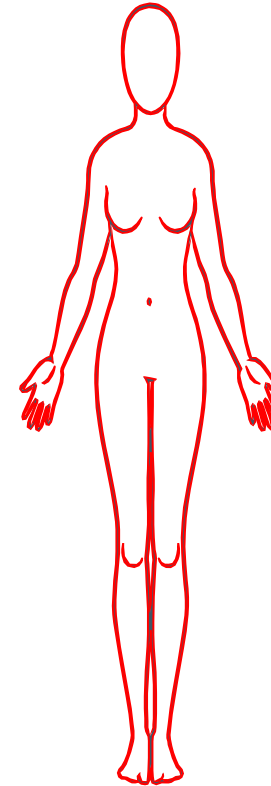


Sympathetic nervous system.
(Stress) v.

Parasympathetic nervous system (Relaxation)

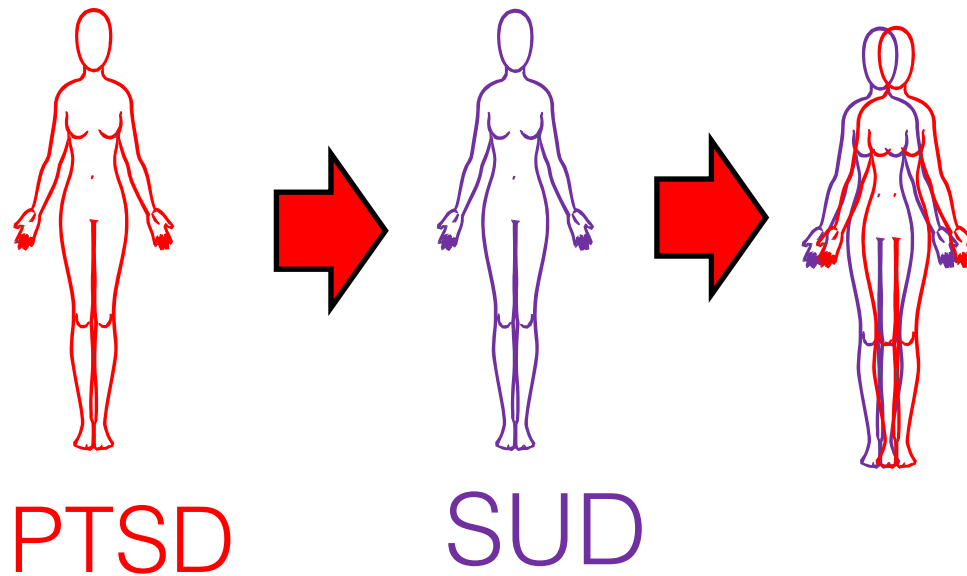
PTSD = Sympathetic Overdrive
SUD = Self Medication

PTSD



(Benson Henry Institute)

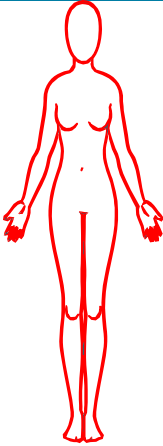
Most likely Etiology



(Berenz, Coffey 2013, Kessler et al 1995, Mellman et al 1992, Chilcot et al 1998)

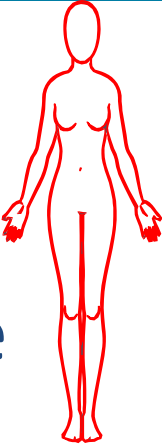
Women...

- 2X as likely as men to develop PTSD
- experience a longer duration of posttraumatic symptoms
- display more sensitivity to stimuli that triggers them
- survivors often wait years to receive help, while others never receive treatment at all



Trauma in Women

- ~50 % of women will experience at least one traumatic event in their life.
- most common trauma = sexual assault (~1 in 3 women) or childhood sexual abuse.



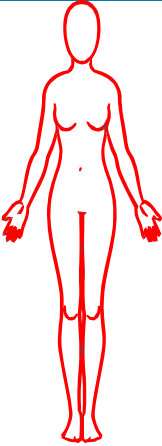
Women are...

more likely to experience sexual assault



sexual assault is more likely to cause PTSD than many other events.

**...more than twice as likely to develop PTSD than men
(10% vs 4%):**



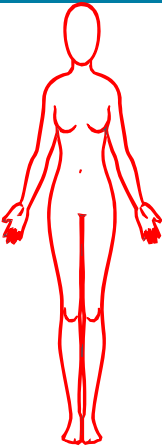
Possible genetic susceptibilities

- possible link between Premenstrual Dysphoric Disorder (PMDD) and PTSD
- e.g. the startle response (hypervigilance) shown to be different in women with PMDD.
- theory: suboptimal production of ALLO >>increased arousal and increased stress reactivity to psychosocial or environmental triggers.

(Raffi Freeman, 2017. Kask K 2008)

Women Specific Events

- **There are also ‘women-specific’ experiences and events that can be traumatic...**
 - Miscarriages / TAB
 - Traumatic Births
 - Other obstetrics or gynecological events

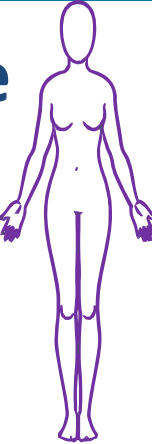


Women Specific History Taking

- Obstetrics history : correlation with mental health
- Gynecological history : mood tracking and correlation with mental health
- Contraception: family planning and correlation with mental health

SUD in Women

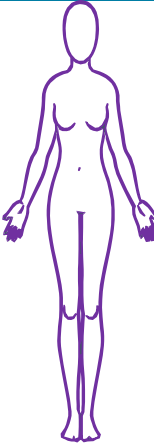
- **several factors associated with risk of substance use do. (during pregnancy) include:**
 - younger age (less than 25 years)
 - a current or past personal and/or family history of SUD
 - co-morbid psychiatric disorders
 - childhood history of sexual abuse



(Kahan et al 2006 and Chansoff et al 2001)

SUD in Women

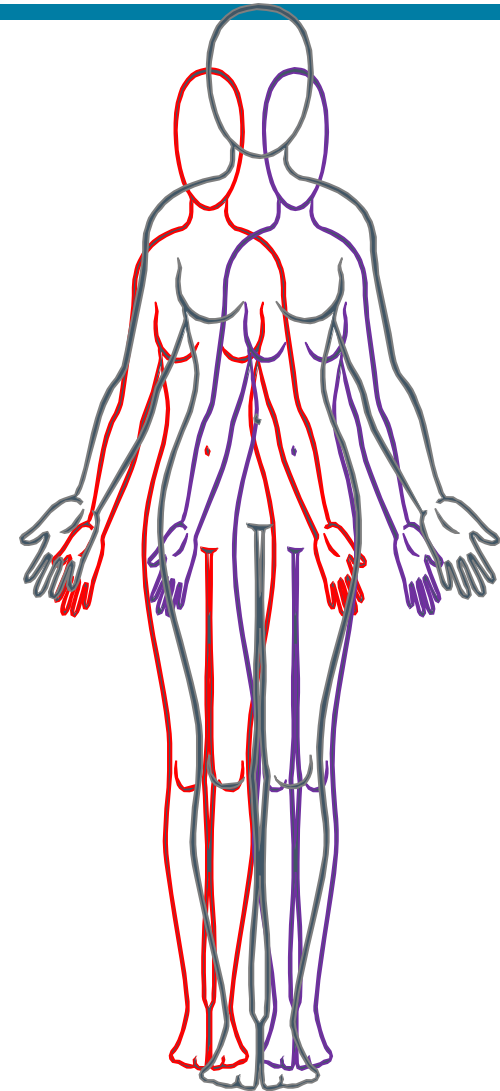
- Opioid use and withdrawal is known to cause
 - (premature labor, miscarriages, fetal distress, increased risk for relapse, overdose and death)
- alcohol use disorder
 - (fetal alcohol syndrome)
- cocaine/stimulant use disorder, nicotine use disorder, etc.
 - (intra uterine growth retardation, low birth weight, placental previa or abruption, preterm delivery, SIDS, etc.)



(Ebrahim et al 2003, Tran et al, 2017)•

Case

- **If you see:** 23 year old female with history of **Hepatitis C** and **Borderline Personality Disorder**, at 8 weeks gestation (**G4P111**) chief complaint : fatigue and insomnia.
- **You should think to rule out:** 23 year old female with history of Hep. C, borderline personality disorder, **Substance Use Disorder**, Trauma related do such as **PTSD, Substance induced mood disorder**, Rule out other mood disorder and anxiety disorders, at 8 weeks gestation (G4P111).

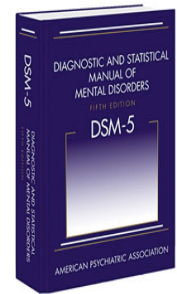


PTSD Diagnosis: What is Trauma?

“An event where a person experiences actual or threatened death, serious injury, or sexual violence”

Criterion A of DSM 5 (one required)

- directly experiencing the event
- Witnessing, in person, as the event occurred to others
- learning that the event occurred to a close person (usually accidental or violent)
- Experiencing repeated or extreme exposure to aversive details of traumatic events



But, What *is* Trauma? The three Es

event, series of events...

...experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse...

- Why me? Feeling powerless, humiliated, guilt, shame, betrayal, silencing.
- Cultural beliefs, social support, developmental stages

...effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being.

- Immediate or delayed, short or long term
- lack of recognition of connections between symptoms of trauma (SAHMSA, 2014)

PTSD Diagnosis

- Criterion B – re-experiencing symptoms
- Criterion C – avoidance of trauma related stimuli
- Criterion D – negative thoughts or feelings after trauma
- Criterion E – trauma related reactivity and arousal
- Criterion F – symptoms last >1 month
- Criterion G – symptoms create distress & functional impairment
- Criterion H – symptoms not due to medications, substances or other illness.

(DSM 5)

Substance Use Disorders

- Direct activation of the reward system by one of 10 types of substances:

Alcohol

Caffeine

Cannabis

Hallucinogens

Inhalants

Opioids

Sedatives

Stimulants

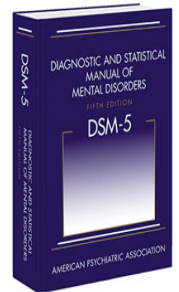
Tobacco

Other

(DSM 5)

Substance Use Disorder DSM 5

- A. Impaired control over use
- B. Social impairment
- C. Risky use
- D. Pharmacological criteria (tolerance, withdrawal)



“Biological” (Rx) Treatment of Mental Health Disorders In Women

- **50% of all pregnancies in the US are unplanned**
- Pick meds with well-studied reproductive safety profile
- If possible, make changes months prior to pregnancy
- Limit number of Rxs. to decrease exposure of infant (maximize one med prior to adding a second)
- **>80% of pregnancies in SUD (OUD) are unplanned**
- **Discuss contraception & pregnancy planning**



“New” Rule:



The FDA published the “Content and Format of Labeling for Human Prescription Drug and Biological Products; Requirements for Pregnancy and Lactation Labeling, referred to as the:

“Pregnancy and Lactation Labeling Rule” (PLLR)

(i.e. No more letter categories – A, B, C, D and X)

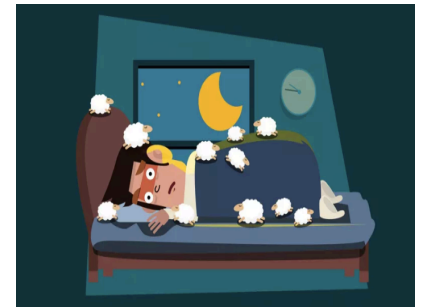
(FDA.gov, Hogan et al 2018)

SUD and Trauma

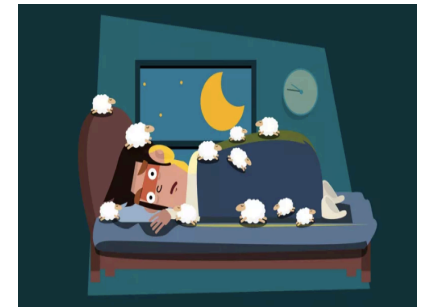
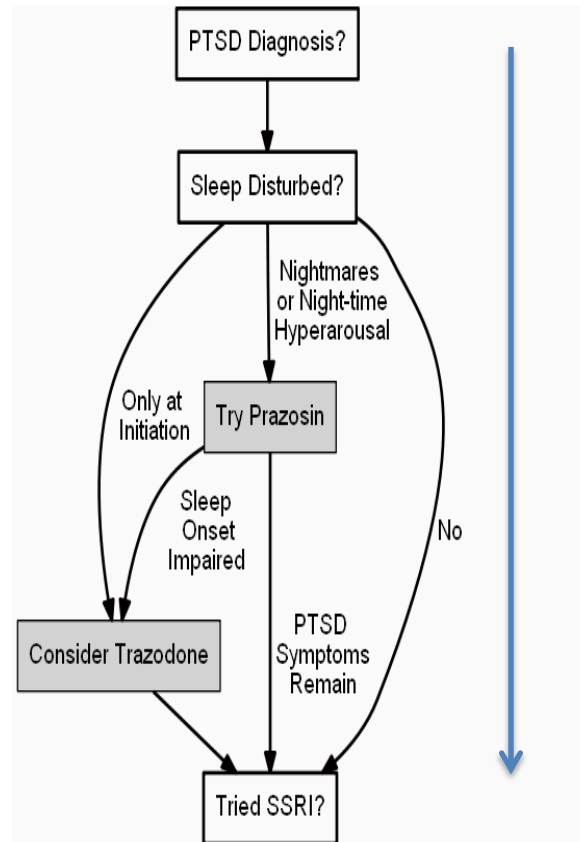
Where can you start?



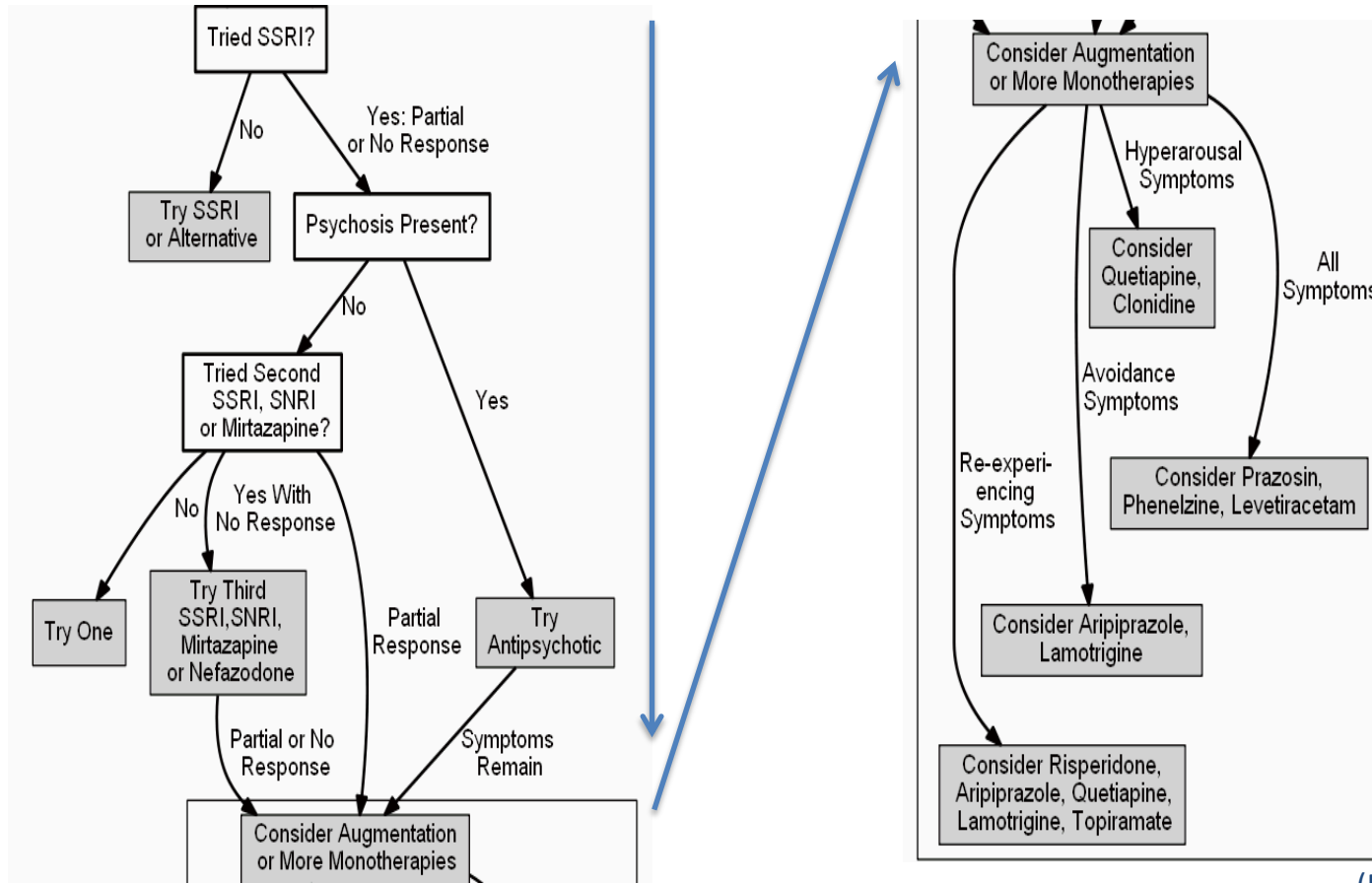
Sleep



SUD and Trauma



Rx. Treatment of PTSD



(Bajor et al. 2018)

Pharm of PTSD and SUD

- Treat trauma as a likely trigger for worsening SUD
- Weigh risks, benefits, alternatives, including risk of no treatment with medications (e.g. Prazosin, SSRIs) and connection to possible rehab.
 - Consider patient's history
 - Negotiate care and patient preferences



MAT



Medication assisted treatment (MAT) for substance use disorders (SUD)

- patient's history of use and treatment
- patient's preference for treatment
- history of relapse
- need for closer monitoring.



The Maternal Opioid Treatment: Human Experimental Research (MOTHER) project

eight-site, randomized, double-blind, double-dummy, flexible-dosing, parallel-group clinical trial **compared** treatment with **methadone** to that of **buprenorphine**.

(Jones et al 2010)



MOTHER project:

neonates exposed to buprenorphine required...

- shorter hospital stays,
- lower morphine requirements
- average of 4.1 days of tx for NAS vs. 9.9 days for methadone ($p < 0.01$).

(Jones et al 2010)



MOTHER project:

33% of women on buprenorphine therapy stopped treatment as vs. 18% of the methadone group ($p=0.02$).

(Full agonists >>>less cravings)

(Fischer et al 2006)

However, in this study, women in both groups had to present to a clinic daily (vs. buprenorphine prescribed weekly+)

(Jones et al 2010)



MAT

Medication assisted treatment (MAT) for substance use disorders (SUD)

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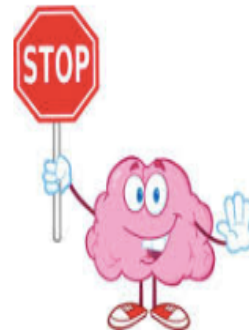
Rx. MAT for SUD

- Naltrexone (PO, IM)
- Disulfiram and acamprosate
- Nicotine replacement therapy , varenicline
& bupropion
- Topiramate, Naltrexone, Baclofen



Psychological Treatment Protocols for Tx of PTSD

- Seeking Safety (non-exposure-based)
- Dialectical Behavioral Therapy (none-exposure based)
- Prolonged Exposure Therapy (exposure-based)
- Cognitive Processing Therapy (exposure-based)
- Eye Movement Desens. & Reprocessing (exposure-based)



Psychological Treatment Protocols for SUD

- Motivational Interviewing
- Cognitive Behavioral Therapy
- Seeking Safety
- Dialectical Behavioral Therapy



Comprehensive Screening

- careful, empathetic, and nonjudgmental interview

>>engage in tx & preserve therapeutic alliance

<<

“I ask the same questions about substance use, mental health, family and social history from everyone.”

Comprehensive Screening

- **a comprehensive assessment of patient to include:**
 - substance use history (amount, duration, route of use, source, previous treatment outcomes and modalities)
 - mental health history (including history of Trauma)
 - obstetrical and gynecological history
 - other medical health (e.g., sexually transmitted do, hepatitis C),
 - medication trials
 - **psychosocial history**
 - **family history**

(Cruciani et al, 2013, SAMHSA, 2013)

What Works Best?

**Integrated, collaborative,
and patient centered care**



....due to multiple needs for providers and many barriers to care in this patient population

- increase patient participation and retention in prenatal care
- improve pregnancy outcomes

(Cruciani et al 2013)

Summary

- All women of reproductive age: screen for Hx of Trauma
- Treat symptoms / disorders in parallel
- Biological, Psychological, Social-Environment interventions
- Integrative and collaborative patient centered care approach



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