Substance Use Disorders and PTSD

Seeking relief through drugs

Prof. Edward Ogden PSM

Post-traumatic stress disorder (PTSD)

- **A large number of clients in substance abuse treatment have current PTSD**

    - 33%-59% in women
    - 12%-34% in men

- **Traumas include**

    - Child abuse
    - Child sexual assault
    - Rape
    - Criminal assault
    - Serious accidents
    - Natural disasters
    - Combat

Najavits, L. M., et al. (1997). "The link between substance abuse and posttraumatic stress disorder in women." The American journal on addictions **6**(4): 273-283.

Clark, H. W., et al. (2001). "Violent traumatic events and drug abuse severity." Journal of Substance Abuse Treatment **20**(2): 121-127.

PTSD

Unhelpful messages

- **"Don't work on PTSD until you are sober"**

- **"We can't treat your mental health while you are using"**

- **"Substance abuse is the only problem to focus on"**

Invalidate the trauma history and **PTSD symptoms may worsen as clients use less**

There is growing support for an integrated approach with the one clinician

Najavits, L. M. and D. Hien (2013). "Helping vulnerable populations: A comprehensive review of the treatment outcome literature on substance use disorder and PTSD." Journal of Clinical Psychology **69**(5): 433-479.

If you don't know it, let me introduce the

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Clinical Psychopharmacology Education For Prescribers

Psychopharmacology Algorithms: PTSD

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PTSD - Introduction

PTSD

Dysregulation of systems

Neurotransmitters

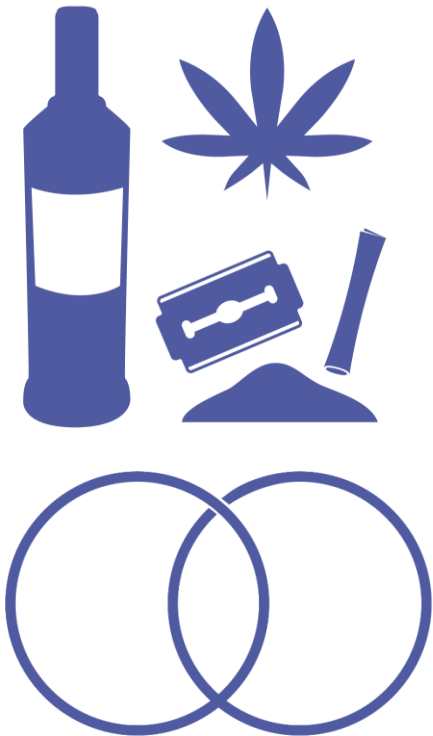Neuroendocrine

Neuroanatomical

Susceptible to pharmacotherapy

Psychotherapy IS important: but not our focus here

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Substance use disorders and PTSD

Common

Increased risk of abusing prescription medications

Chilcoat HD, Breslau N. Posttraumatic stress disorder and drug disorders: testing causal pathways. Arch Gen Psychiatry 1998;55:913–7.
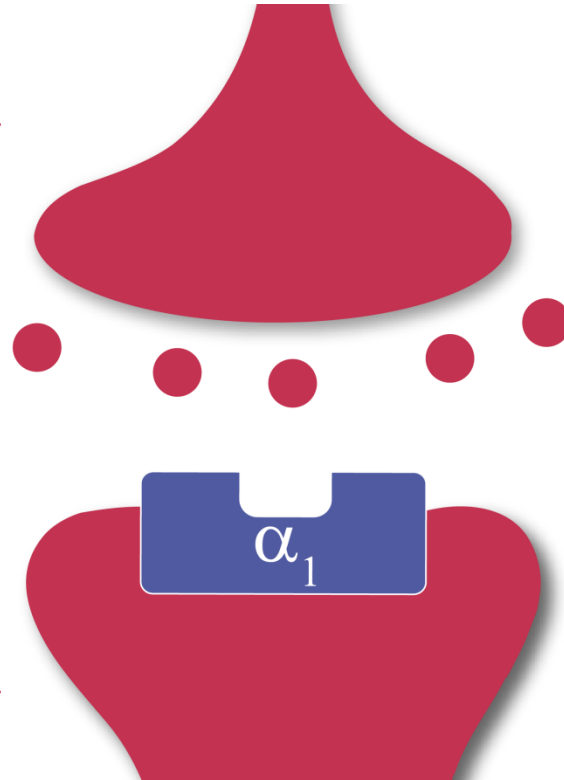
Substances are used to

SLEEP

'Relieve the pain'

Reduce anxiety/agitation (? hypervigilance)

Pathophysiology of sleep disturbances in PTSD

Increased noradrenergic activity during sleep

α_1

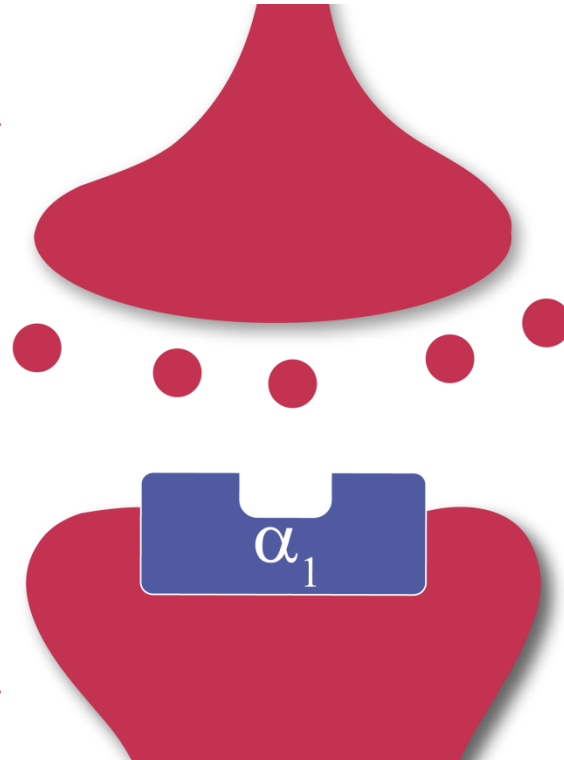Mellman TA, Knorr BR, Pigeon WR, Leiter JC, Akay M. Heart rate variability during sleep and the early development of posttraumatic stress disorder. Biol Psychiatry 2004;55: 953–6.

Raskind, MA et al (2003, 2007)

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Pathophysiology of sleep disturbances in PTSD

Increased noradrenergic activity during sleep

α_1

SSRIs

Can exacerbate sleep symptoms

Lamarche LJ, De Koninck J. Sleep disturbance in adults with posttraumatic stress disorder: a review. J Clin Psychiatry 2007;68:1257–70.

Kobayashi I, Boarts JM, Delahanty DL. Polysomnographically measured sleep abnormalities in PTSD: a meta-analytic review. Psychophysiology 2007;44:660–9

Pathophysiology of sleep disturbances in PTSD

Prazosin
α_1 adrenergic blocker

PRZ

α_1

Larger effect sizes in PTSD symptoms

Crosses the blood-brain barrier

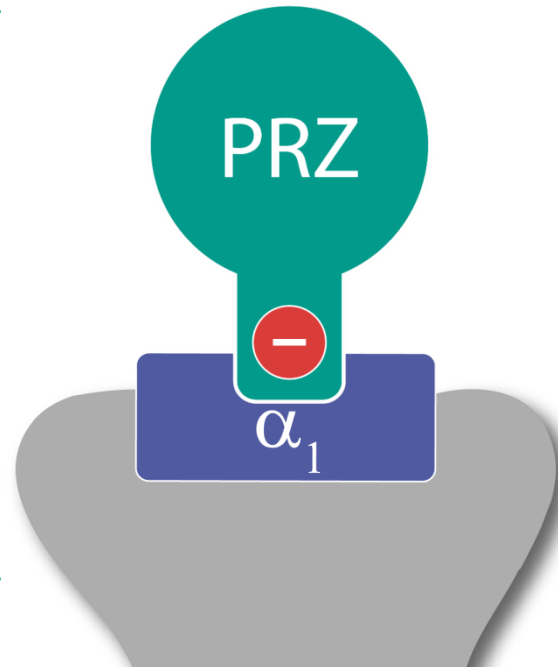- Lamarche LJ, De Koninck J. Sleep disturbance in adults with posttraumatic stress disorder: a review. J Clin Psychiatry 2007;68:1257–70.

- Taylor FB, Martin P, Thompson C, et al. Prazosin effects on objective sleep measures and clinical symptoms in civilian trauma posttraumatic stress disorder: a placebo-controlled study. Biol Psychiatry 2008;63:629–32

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Protocol for men

Mean average dose : 16 mg (15.6)

- 1 mg HS for 2 nights
- 2 mg for 5 nights
- 4 mg for 7 nights
- 6 mg for 7 nights
- 10 mg for 7 nights
- 15 mg for 7 nights

5 weeks to reach the average dose

Maximum: 25 mg HS

Goal of treatment: eliminate disturbed awakenings

Mid-morning dose (10-11 AM)

- Week 2:
  - 1 mg
- Week 3 – 4:
  - 2 mg
- Week 5-6:
  - 6 mg

Raskind, M. A., et al (2013). A trial of prazosin for combat trauma PTSD with nightmares in active-duty soldiers returned from Iraq and Afghanistan. American Journal of Psychiatry.

Protocol for women

Median dose : 7 mg

- 1 mg HS x 3 nights
- 2 mg for 11 nights
- 4 mg for 7 nights
- 6 mg for 7 nights

Maximum dose: 10 mg

Mid-morning dose (10-11 AM)

- Week 2-3:
  - 1 mg
- Week 4-5:
  - 2 mg

Raskind, M. A., et al (2013). A trial of prazosin for combat trauma PTSD with nightmares in active-duty soldiers returned from Iraq and Afghanistan. American Journal of Psychiatry.

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Discussion