

Background

- The opioid epidemic has continued to intensify over the last decade, with an average of 116 Americans dying from opioid overdose every day.¹
- Methadone, an opioid agonist that blocks the euphoric effects of opiates and reduces the painful symptoms of withdrawal, is the primary treatment for opioid addiction.
- However, the success rate of methadone maintenance treatment (MMT) has been shown to vary from 60 to 90 percent.²
- Perceived stress has been identified as a factor predictive of premature termination and relapse, making stress reduction an important area of study in MMT.³
- However, little research is available on the effects of active stress-coping mechanisms on MMT outcomes.

Objective: To address this gap, the current study was conducted to examine the impact of physical activity on stress reduction and MMT outcomes.

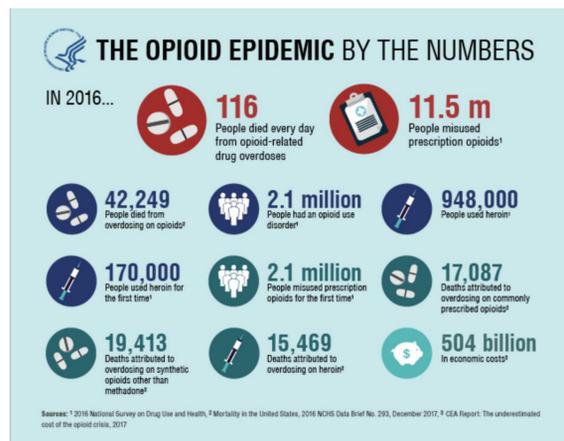
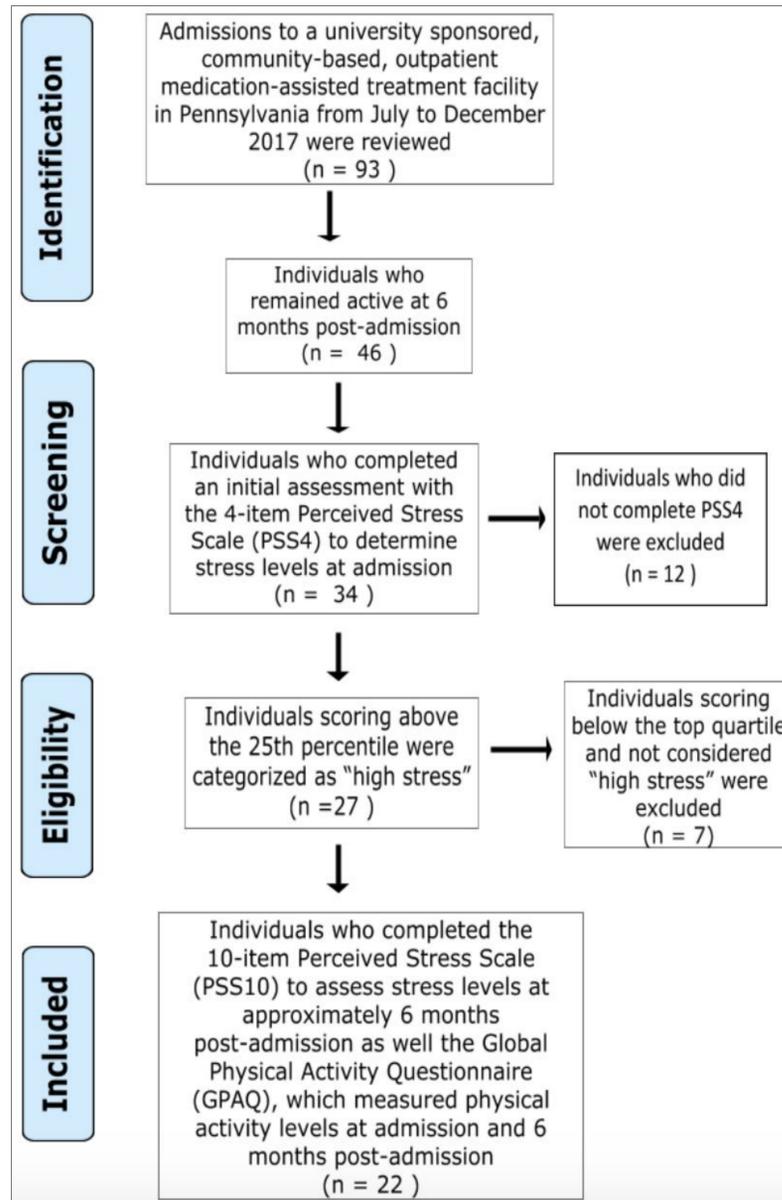


Figure 1. The Opioid Epidemic By The Numbers. Adapted from About the U.S. Opioid Epidemic by U.S. Department of Health and Human Services, 2018.

Methods



Discussion

- The data, based on a limited sample, suggests that treatment is associated with decreases in levels of stress in this population.
- Patients attributed their decreased physical activity levels to reduced or nonexistent drug-seeking activity, as well as to the demanding time-commitments of MMT.
- The failure to find significant effects of physical activity may be a consequence of certain study limitations, including:
 - Limited final sample size (n = 22)
 - Potential for recall bias among study participants
 - Limited financial resources, thereby limiting the measurement of physical activity to the questionnaires

Future Implications

- To better address the study question, future studies could focus on incorporating physical exercise in MMT to determine if those who regularly engage in physical activity demonstrate better outcomes.
- Controlled studies can ensure accurate measurement of physical activity and conduct the PSS4 and PSS10 at their designated times, reducing the chance of recall bias
- Identification of positive effects would allow the medical community to introduce non-pharmaceutical approaches to the treatment of opioid use disorders.

References

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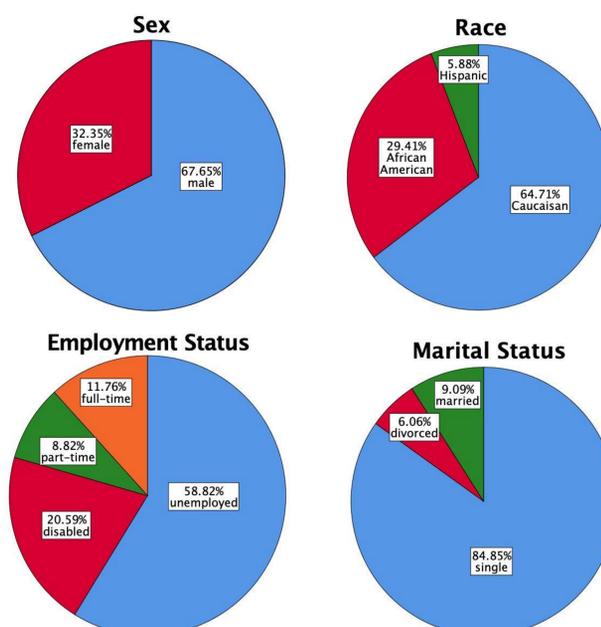
Results

Sample

- Mean age: 40.52 ± 11.84 years
- As can be seen, the majority of subjects were Caucasian, male, single and unemployed.
- In the first 180 days of treatment, subjects were dosed on average of 164.02 days (91.1%) with the average dose equaling 85.40 ± 40.2 milligrams per day.

Stress & Physical Activity

- Stress levels were observed dropping significantly from admission to 6 months post-entry from a mean stress level of 2.82 ± 0.59 to 1.88 ± 0.80, t(22)=4.971, p<0.01
- Interestingly, physical activity levels dropped, however not significantly, from admission to 6 months post-entry, from 177.06 ± 188.09 to 126.59 ± 125.97 MET-minutes, t(22)=1.406, p=0.174
- No relationship between changes in stress and activity levels was observed.



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