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.

Methods

- **Admissions to a university sponsored, community-based, outpatient medication-assisted treatment facility in Pennsylvania from July to December 2017 were reviewed (n = 93)**
  - **Individuals who remained active at 6 months post-admission (n = 46)**
  - **Individuals who completed an initial assessment with the 4-item Perceived Stress Scale (PSS4) to determine stress levels at admission (n = 34)**
  - **Individuals who did not complete PSS4 were excluded (n = 12)**
  - **Individuals scoring above the 25th percentile were categorized as “high stress” (n = 27)**
  - **Individuals scoring below the top quartile and not considered “high stress” were excluded (n = 7)**

- **Individuals who completed the 10-item Perceived Stress Scale (PSS10) to assess stress levels at approximately 6 months post-admission as well the Global Physical Activity Questionnaire (GPAQ), which measured physical activity levels at admission and 6 months post-admission (n = 22)**

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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