

Psychosocial correlates of executive function in individuals with opioid use disorder who are actively using opioids

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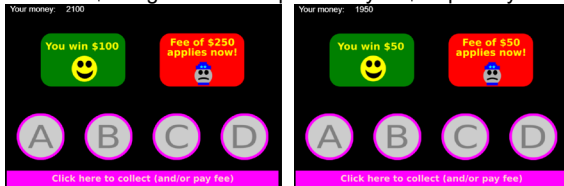
Introduction

- Psychosocial stress: Aversive conditions exceeding the behavioral resources of an individual¹
- Psychosocial stress linked to SUD and relapse risk²
- Emotional executive function (EF) governs the reward/punishment experience, impacting social behavior and emotional and personal interpretation³
- Users of opiates, stimulants, and alcohol show impaired EF which may further impair treatment seeking behavior⁴
- The role of psychosocial stress on EF in the context of OUD is poorly understood

Research Objective: To explore psychosocial factors associated with EF among individuals with OUD not receiving MAT

Methodology

- Community-based recruitment (Providence, RI) through Craigslist ad, fliers at SEP, and participant referral
- **Eligibility:** 18 years or older, opioid use in the past 90 days, screening positive for DSM-5 OUD, no MAT in past 30 days
- Administered a questionnaire on, social stability, food insecurity, substance use and severity, drug use stigma, social support, perceived stress, depression, anxiety, adverse childhood experiences, and trauma using validated measures
- Administered computer version of the Iowa Gambling Task:
 - Begin with \$2000, select button A, B, C, or D; repeat 200x
 - A & B: \$100 gain but 50% probability of \$250 penalty
 - C & D: \$150 gain but 50% probability of \$50 penalty



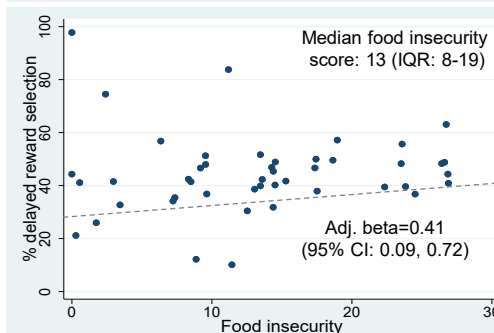
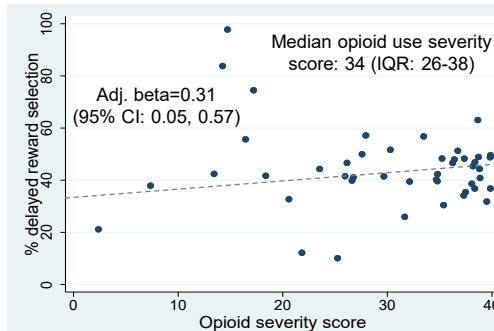
- **Outcome:** % delayed reward selection (C&D buttons)
- Robust linear regression for each psychosocial factor, adjusting for age, education, and opioid severity
- Report results where $p < 0.20$ given small sample size

Results

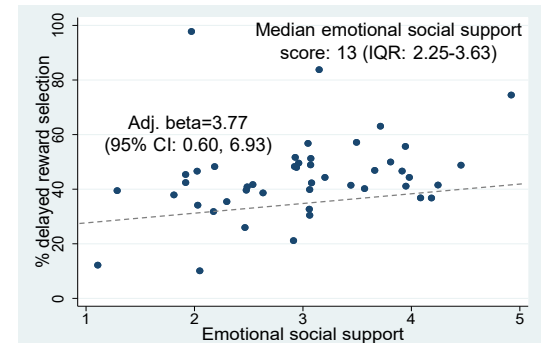
- **46 participants:** 64% male, 70% White non-Hispanic, 11% Black non-Hispanic, 19% Hispanic, median age 43 yrs
 - 72% some Highschool education; 75% low social stability
 - 89% weekly/daily opioids, 74% within 48 hours of study
 - 45% weekly/daily cocaine; 40% weekly/daily cannabis
- **Mean (SD) % delayed reward selection:** 44.3% (15.3)
- Regression results:

	Cannabis Adj. beta (95% CI)	Cocaine Adj. beta (95% CI)
Never/not in past 3mos	Ref	Ref
Monthly/weekly	5.12 (-1.08, 11.31)*	2.53 (-3.22, 8.28)
Daily or almost daily	0.03 (-6.69, 6.74)	5.10 (-1.94, 12.15)**

* $p=0.10$; ** $p=0.15$



Results



- Social stability index (beta= -1.79; 95% CI: -4.09, 0.51; $p=0.12$)
- Anticipated stigma (beta= -1.57; 95% CI: -3.90, 0.75; $p=0.18$)

Conclusions

- Observed EF slightly lower than general population samples, which weakly favor delayed reward selection (50-60%)⁵
- Interventions focusing on **emotional social support** and minimizing **anticipated stigma** may improve emotional EF and subsequent OUD treatment retention.
- Unclear why adverse factors such as **opioid severity, other substance use, food insecurity, and social instability** are associated with higher emotional EF
 - Current study small sample size
- Factors contributing to lower EF in people with OUD compared to general population may differ from factors associated with EF among people with OUD

References

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This project supported by funding from the Buffalo Innovation Lab (NIH/NCATS UL1TR0001412)
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