



Using Behavioral Economics to Predict Outcomes of Medication and Counseling for Prescription Opioid Dependence

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INTRODUCTION

Prescription opioid addiction has emerged as a significant public health problem and poor treatment outcomes are common but difficult to predict.

“Behavioral economics” uses behavioral metrics of drug-related resource allocation to understand individual differences in drug reinforcement and valuation.

Measures of naturalistic drug-seeking can also provide a behavioral economic index of drug valuation.

Baseline differences in drug valuation could be used to understand and predict poor outcomes of treatment for prescription opioid addiction.

Goal: To determine if poor treatment response for prescription opioid addiction may be due to greater levels of drug valuation prior to treatment.

METHODS

Participants (N = 353)

- Sample drawn from Phase 2 of CTN-0030 (POATS)
- DSM-IV prescription opioid dependence
- Physiological dependence
- No previous injection or heavy use of heroin

Treatments (12 weeks)

- Sublingual buprenorphine-naloxone (BUP-NLX)
- Randomized to standard or enhanced counseling
- Enrolled after a failed 4-week BUP-NLX detox

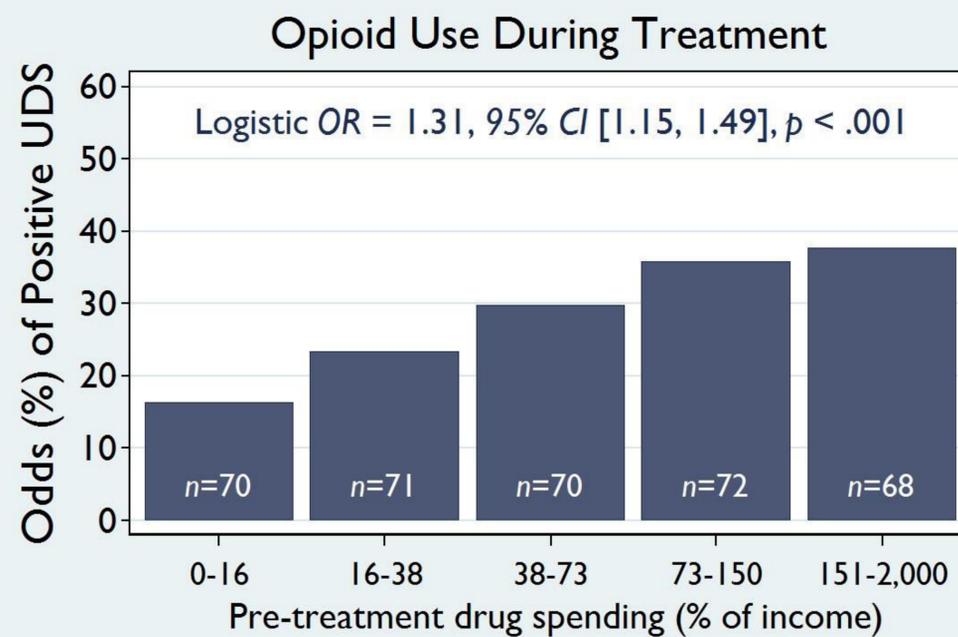
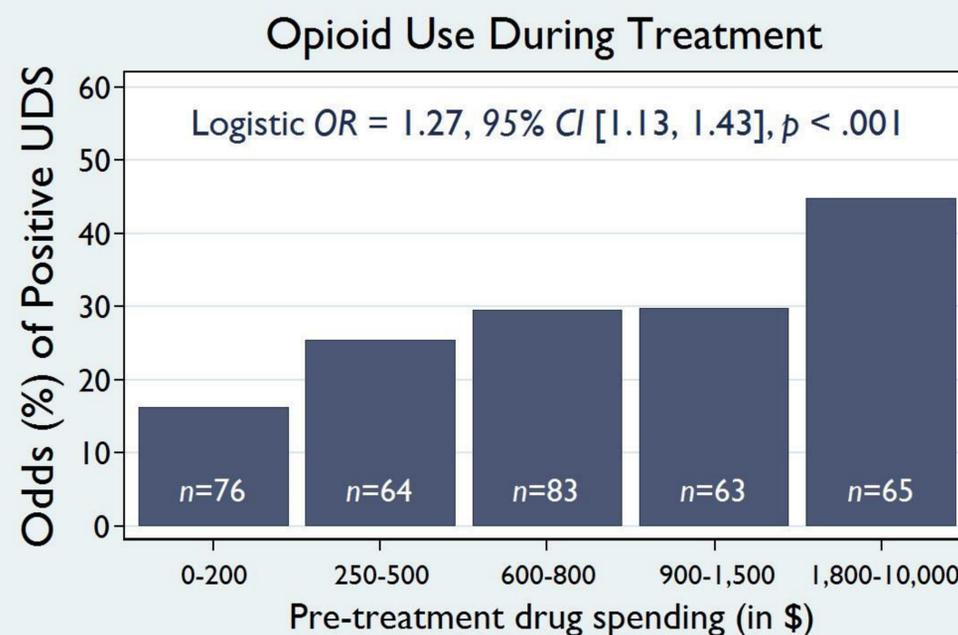
Outcomes (weekly during treatment)

- Positive opioid urine drug screen (dichotomous)
- Adjusted for counseling condition and opioid source
- Examined with multilevel logistic regression

ANALYSES & RESULTS

Predictor variables (from baseline ASI)

- Total \$ spent on drugs in past 30 days (log)
- Percent of past-month income spent on drugs (log)



DISCUSSION

Patients who spent more (total and % of income) on drugs were more likely to continue using opioids during 12 weeks of medication and counseling.

Findings were consistent when controlling for opioid dependence severity and frequency of obtaining opioids from dealers and doctors.

Variability in drug spending may reflect differences in markers of “reinforcer pathology” such as delay discounting and drug demand.

CONCLUSIONS

Greater severity of drug reinforcement value reflects increased risk for poor outcomes during prescription opioid addiction treatment.

These findings provide preliminary validation of behavioral economic principles of addictive behavior in prescription opioid users.

Behavioral economic markers are putative phenotypes and could potentially increase our understanding of prescription opioid addiction in vulnerable populations, such as persons with chronic pain.

DISCLOSURES

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The NIDA Clinical Trials Network (CTN) conducted the original clinical trial but was not involved in conceptualizing this study.

The NIDA CTN publications committee has reviewed and approved this presentation.

