

# Substance Use Urges and the Use of Dialectical Behavior Therapy Skills as Reported in Daily Diary Cards

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# Abstract

This study examined relationships between Dialectical Behavior Therapy (DBT) skills usage and **substance use urges** among individuals with Borderline Personality Disorder (BPD). Self-report Diary Card data was analyzed for 37 adult patients enrolled in DBT. The multilevel analysis found a marginally significant **reduction in substance use urges** from pre-treatment ( $M=.99$ ,  $SE=.13$ ) to post-treatment ( $M=.85$ ,  $SE=.12$ ) across all participants  $F(1,34.80)=3.94$ ,  $p=.06$ . Further, this study found **emotion regulation** and **interpersonal effectiveness skills** as the strongest association with substance use urges, suggesting that **problem solving, social connection, and working toward goals** may be effective skills for patients coping with substance use urges.

# Introduction



- Nearly **50%** of patients diagnosed with BPD have a comorbid substance use disorder<sup>2,3</sup>
- Studies show **mixed conclusions** linking emotion regulation<sup>4</sup> and distress tolerance<sup>5</sup> to reduced substance frequency.
- In a study on DBT for substance abuse disorders, the emotion regulation skill of “**cope ahead**” was related to reduction in substance use urges<sup>6</sup>

# Current Study

- **Aim #1:** Examine changes in substance use urges from pre- to post- treatment
- **Aim #2:** Explore associations of DBT skills with substance use urges.



# Method

- **AIM #1:**
- Used a **multilevel model** to assess patients' substance use urges (0-5) during the first and last four weeks of DBT treatment (6 months).
- Study used self-reported **Weekly Diary Card data** from 44 adult patients (7 patients were excluded due to missing data)
- N=193 diary cards
  - First 4 weeks (88 diary cards)
  - Last 4 weeks (105 diary cards)

- **Aim #2:**
- **Pearson's Correlation** was used to assess the strength of the relationship between urges (0-5) and DBT skills usage (average weekly)
- Study used self-reported **Weekly Diary Card data** from 44 adult patients
- Demographics:
  - 12 males, 32 females
  - 21 White, 2 Black or African-American, 1 Asian-American, 15 declined to state
  - Median age = 25 years old

\*\*Methods have been updated since poster submission



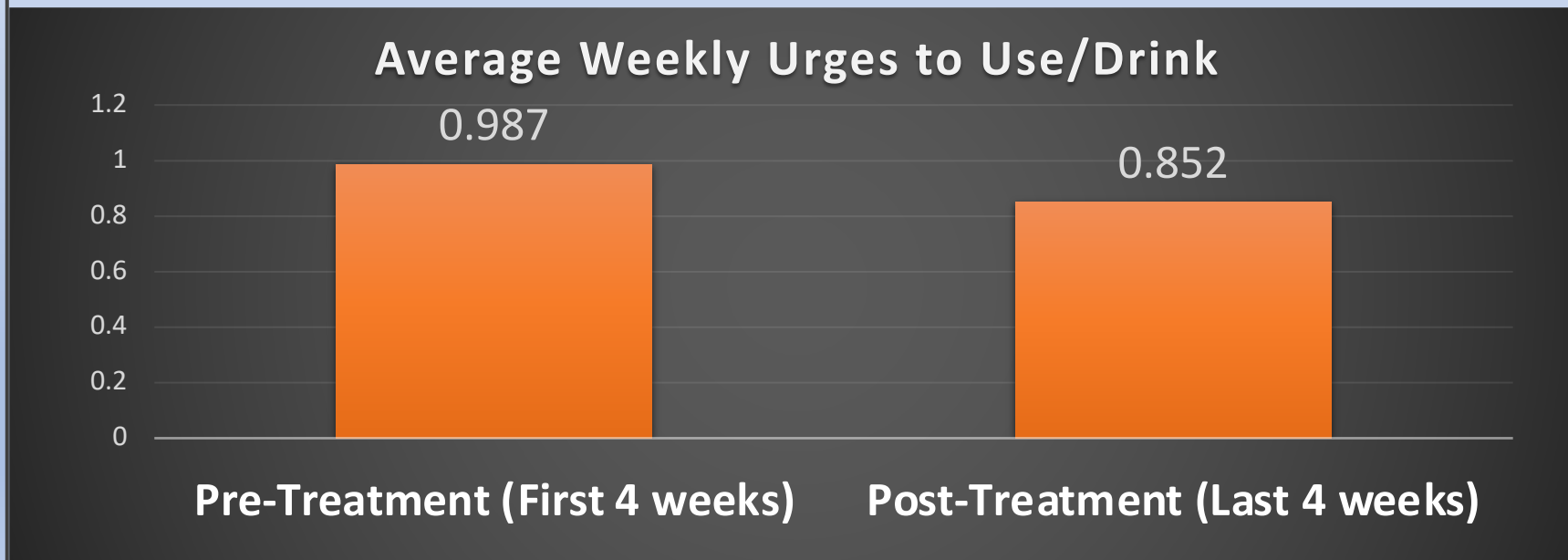
# Hypothesis

- H1: Average substance use urges will decrease from the beginning to end of treatment.
- H2: Both **distress tolerance** and **emotion regulation skills** will be strongly associated with substance use urges



# Aim #1 Results

- There was a **significant reduction in substance use urges** from pre-treatment (M = .987, SE = .125) to post-treatment (M = .852, SE = .124) **across all participants**  $F(1,34.80)=3.944, p < .05$ .



## Aim #2 Results

- **Of the 41 DBT skills assessed, 7 were significantly positively correlated ( $p < .05$ ) with average weekly substance urges.**
- **Higher substance use urges were associated with a greater number of days that skills were used in a week.**

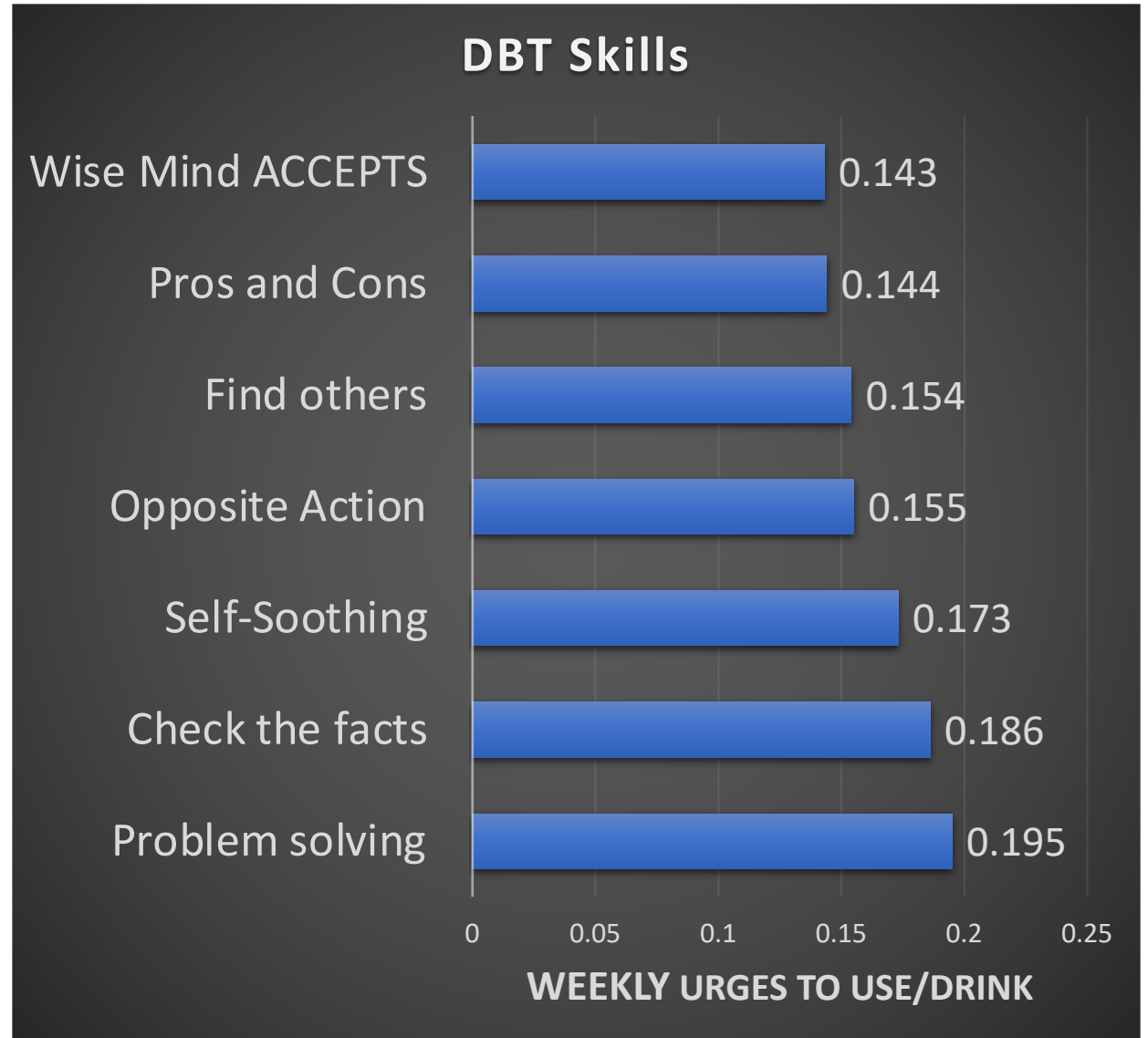
**\*\*Statistics have been updated since poster submission**



# Aim #2 Results

1. **Problem Solving to change emotions** ( $r = .195, p = .01$ )
2. **Check the facts** ( $r = .186, p = .01$ )
3. **Self-Soothing** ( $r = .173, p = .02$ )
4. **Opposite Action** ( $r = .155, p = .03$ )
5. **Find others and get them to like you** ( $r = .154, p = .03$ )
6. **Pros and Cons of acting on urges** ( $r = .144, p = .04$ )
7. **Distracting: Wise Mind ACCEPTS** ( $r = .143, p = .05$ )

\*\*Statistics have been updated since poster submission



# Discussion

- **This study found that emotion regulation skills focused on changing current emotion, and distress tolerance skills were significantly correlated with average substance use urges.**
- The nature of the relationship between these skills and the patient experience is unclear. Patients may have turned to these skills in response to substance use urges, urges may have been secondary to the emotions the patients' were trying to change, or patients may have experienced higher urges to use due to difficulties with practicing these skills.
- Suggests that when patients have high urges, they seem to use these seven skills more frequently that week.

# Limitations & Future Directions

## Limitations:

- Due to limited and incomplete Diary Card data, small and unclear sample size, and lack of temporal data, the analysis lacks data about actual usage, and we cannot make assumptions about why these skills had the strongest associations with urges.

## Future Directions:

- Conduct repeated measures analysis using daily substance urges nested within patients
- Examine impact of DBT skills on reported use of substances
- Explore effects of process variables such as time in treatment or current skills module

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