

Treatment Maintenance and Beyond with Substance Use Disorders: The Sleeper Effect

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INTRODUCTION

- Approximately 21.5 million adolescents and adults in the U.S. have a substance use disorder (SUD) (Center for Behavioral Health Statistics and Quality, 2015)
- 30%-50% of those with an SUD remain abstinent for only short periods of time following treatment (CBHSQ, 2015; Lee, An, Leven, & Twhig, 2015)
- Transdiagnostic approaches such as Acceptance and Commitment Therapy (ACT) have exhibited superior long-term outcomes compared to several established treatments (Clark, Kingston, James, Bolderston, & Remington, 2014; Lee et al., 2015)
- A growing body of literature suggests that ACT produces a unique “sleeper effect” contributing to longer-term abstinence beyond posttreatment outcomes (Lee et al., 2015; Luoma, Kohlenberg, Hayes, & Fletcher, 2012)

OBJECTIVES

- **Aim**
 - This study aimed to examine the impact of a 16-session ACT intervention on psychological inflexibility, valued-action, and self-compassion at 3-month follow-up
- **Hypotheses**
 - 1) Improvements in psychological inflexibility, valued-action, and self-compassion would be maintained at follow-up when compared with baseline functioning
 - 2) Continued therapeutic gains would be made in psychological inflexibility, valued-action, and self-compassion at follow-up when compared with post-treatment functioning

METHODS

- **Participants**
 - This study was part of a larger investigation ($N = 47$) into the effectiveness of the Choice Point Model of ACT (CPM-ACT) for residential SUD treatment
 - Analysis 1: $n = 30$
 - Analysis 2: $n = 20$
- **Procedure**
 - *Analysis 1*: Paired sample t-tests were performed comparing baseline functioning with follow-up
 - *Analysis 2*: Paired sample t-tests were performed comparing post-treatment functioning with follow-up
 - *Measures*: AAQ-II, VLQ, SCS

RESULTS

- **Treatment Maintenance**
 - Treatment gains were maintained in psychological inflexibility at follow-up when compared with baseline functioning, $t(29) = 10.25, p < .001, d = 1.87$ (see Figure 1.1)
 - Therapeutic benefits were sustained in valued-action when comparing follow-up with baseline, $t(29) = -5.12, p < .001, d = .94$ (see Figure 2.1)
 - Gains in self-compassion were maintained at follow-up when compared with baseline functioning, $t(29) = -6.40, p < .001, d = 1.17$ (see Figure 3.1)
- All SCS and VLQ subscales were significant, $p < .05$
- **Sleeper Effect**
 - Continued gains in psychological inflexibility were measured at follow-up compared to post-treatment, $t(19) = 3.29, p = .004, d = .74$ (see Figure 1.2)
 - Mindfulness (SCS Subscale) also demonstrated continued improvements when comparing follow-up with post-treatment, $t(19) = -2.25, p = .036, d = .50$ (see Figure 4.2)
 - Non-significant positive trends in self-compassion were observed at follow-up compared to post-treatment, $t(19) = -1.48, p = .155$ (see Figure 3.2)

Table 1. Demographics ($n1=30, n2=20$)

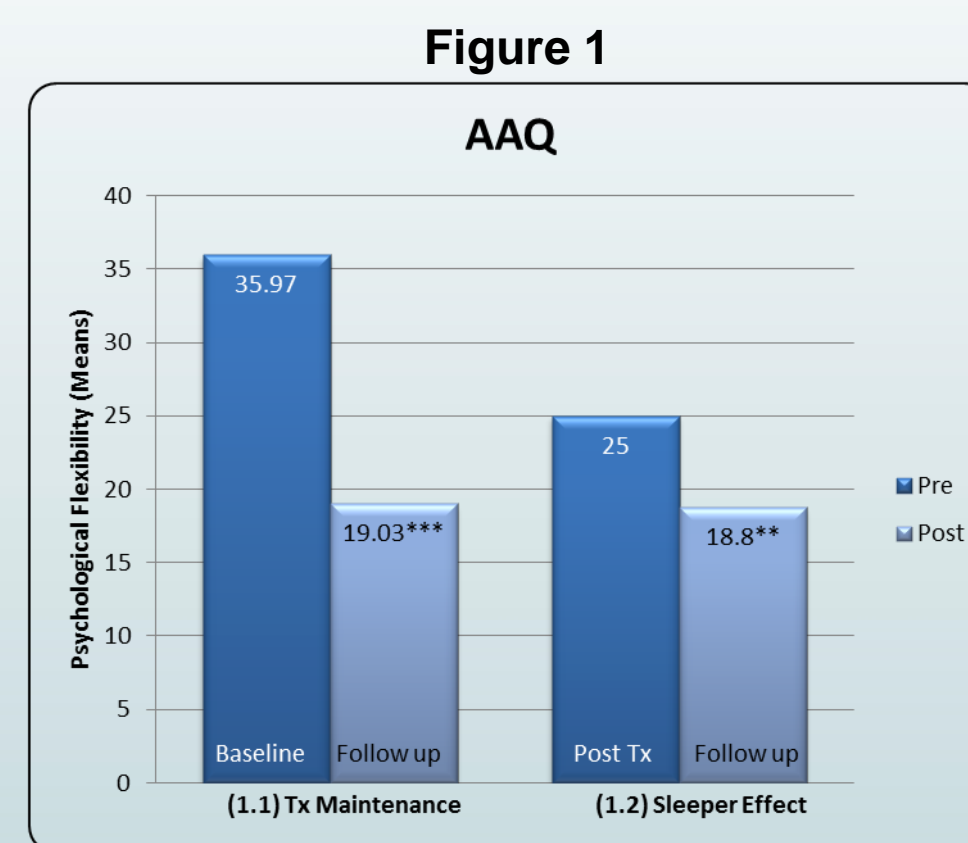
Characteristics	n1	%	n2	%	Characteristics	n1	%	n2	%
Gender					Income				
Male	14	46.7	8	40.0	\$0-\$30,000	4	13.3	3	15.0
Female	16	53.3	23	60.0	\$31,000-\$70,000	13	43.3	8	40.0
Age					Substances (Self-Report)				
18-24	4	13.3	3	15.0	\$71,000-\$100,000	8	26.7	5	25.0
25-34	6	20.0	5	25.0	Over \$100,000	5	16.7	4	20.0
35-44	9	30.0	4	20.0	Opiates/Opioids	6	20.0	3	15.0
45-54	7	23.3	5	25.0	Alcohol	17	56.7	13	65.0
55-64	3	10.0	2	10.0	Stimulants	2	6.7	1	5.0
65-100	1	3.3	1	5.0	Anxiolytics/Hallucinogens	1	3.3	1	5.0
Ethnicity/Race					MH Diagnosis (Self-Report)				
African American	2	6.7	2	10.0	Other/Polysubstance	4	13.3	2	10.0
White	27	90.0	17	85.0	Depression	5	16.7	3	15.0
Other	1	3.3	1	5.0	Anxiety	5	16.7	3	15.0
					Dep/Anx	14	46.7	9	45.0
					Dep/Anx/Pain	4	13.3	3	15.0
					None	2	6.7	2	10.0

CONCLUSIONS

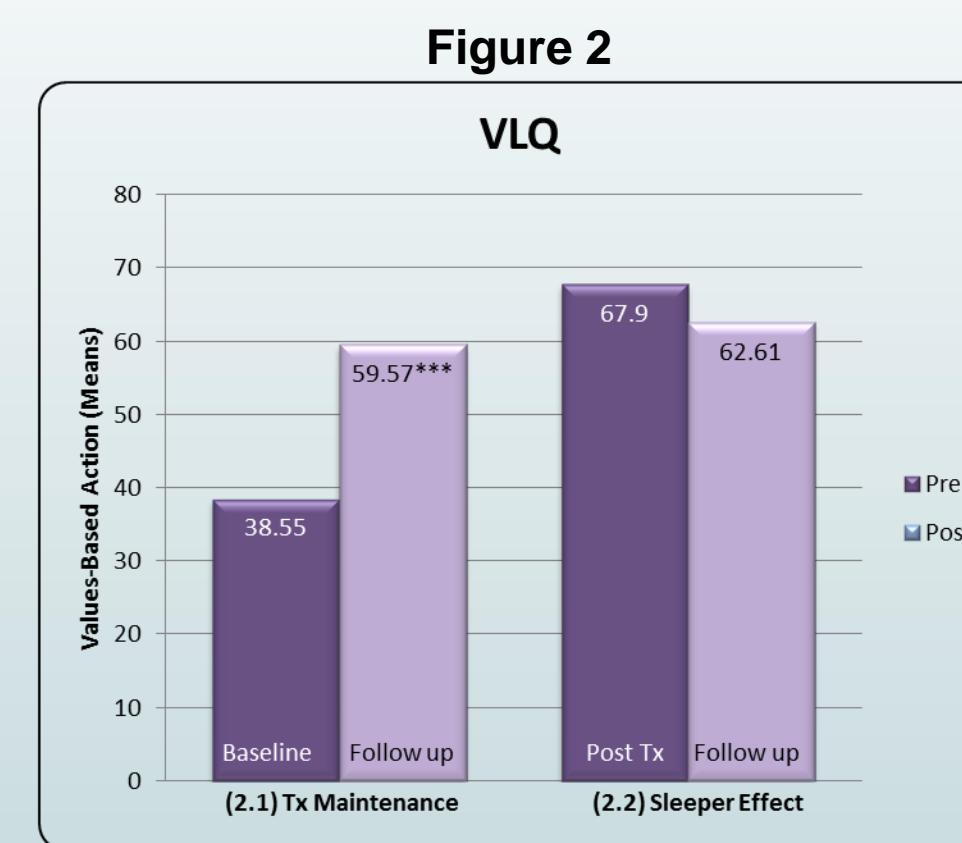
- Findings indicate that participants who completed manualized CPM-ACT sustained benefits in psychological inflexibility, valued-action, and self-compassion at follow-up
- Continued improvements in psychological inflexibility and mindfulness at 3-month follow-up suggest that therapeutic benefits kept increasing beyond post-treatment
- These findings have important implications as therapeutic rewards typically deteriorate with time
- Instead, findings revealed a unique sleeper effect, suggesting more robust outcomes than established approaches
- Interventions capable of maintaining outcomes while also yielding a sleeper effect may be critical for longer-term SUD abstinence

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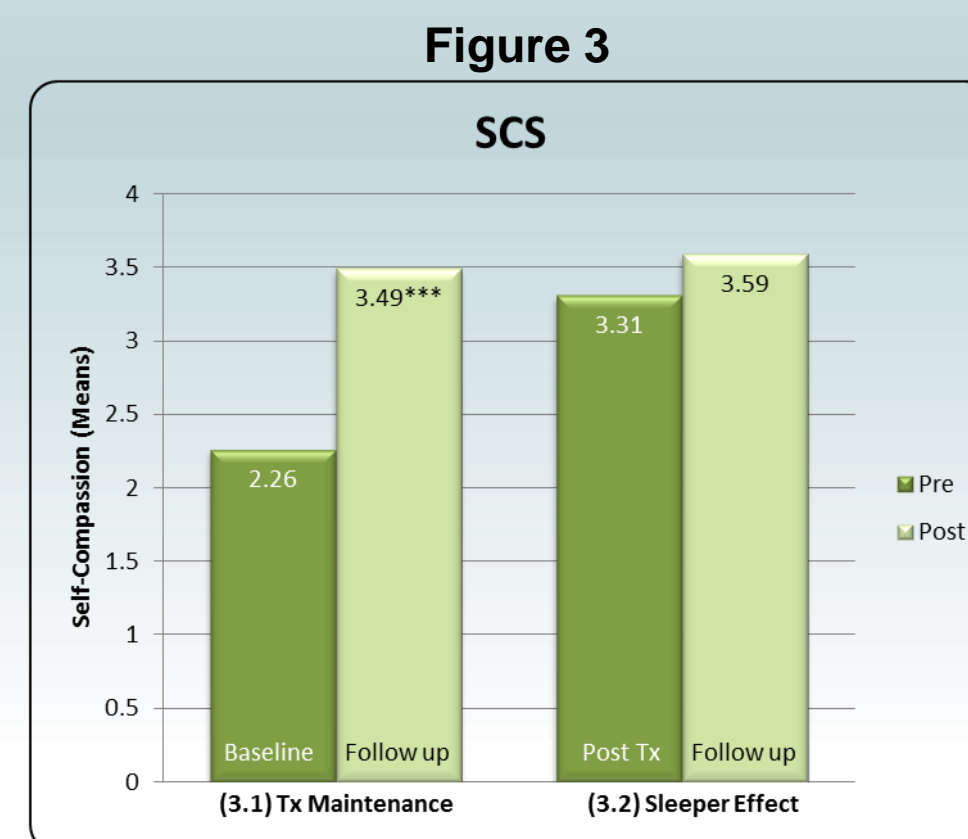
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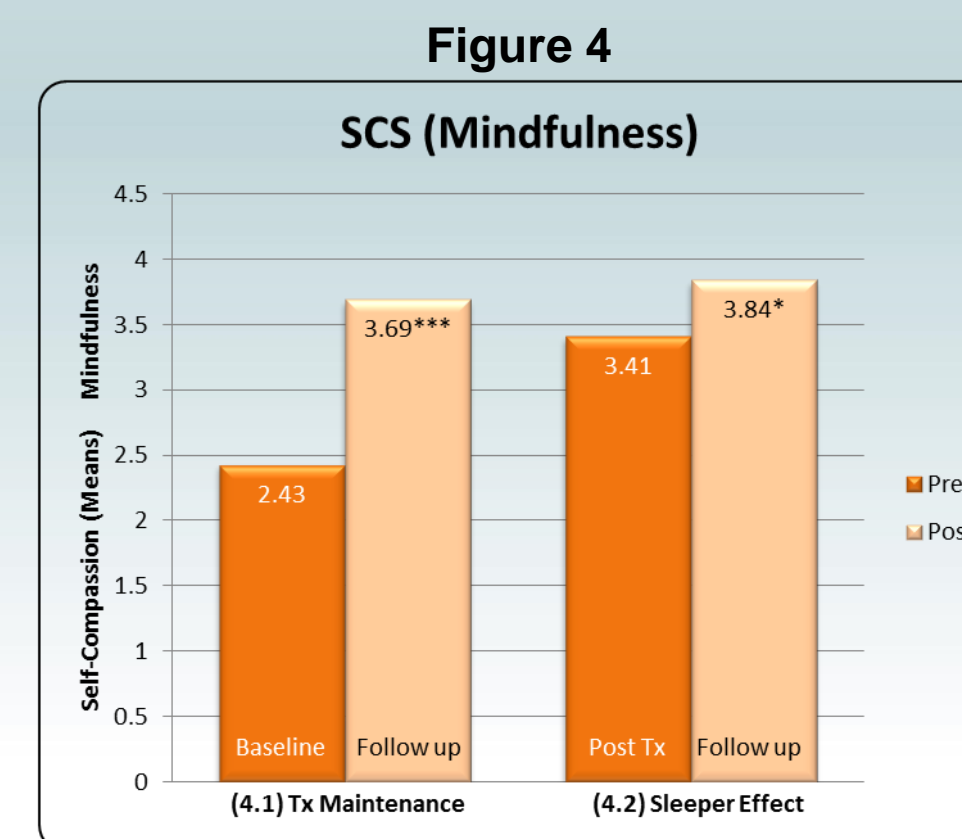
* $p < .05$. ** $p < .01$. *** $p < .001$.



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