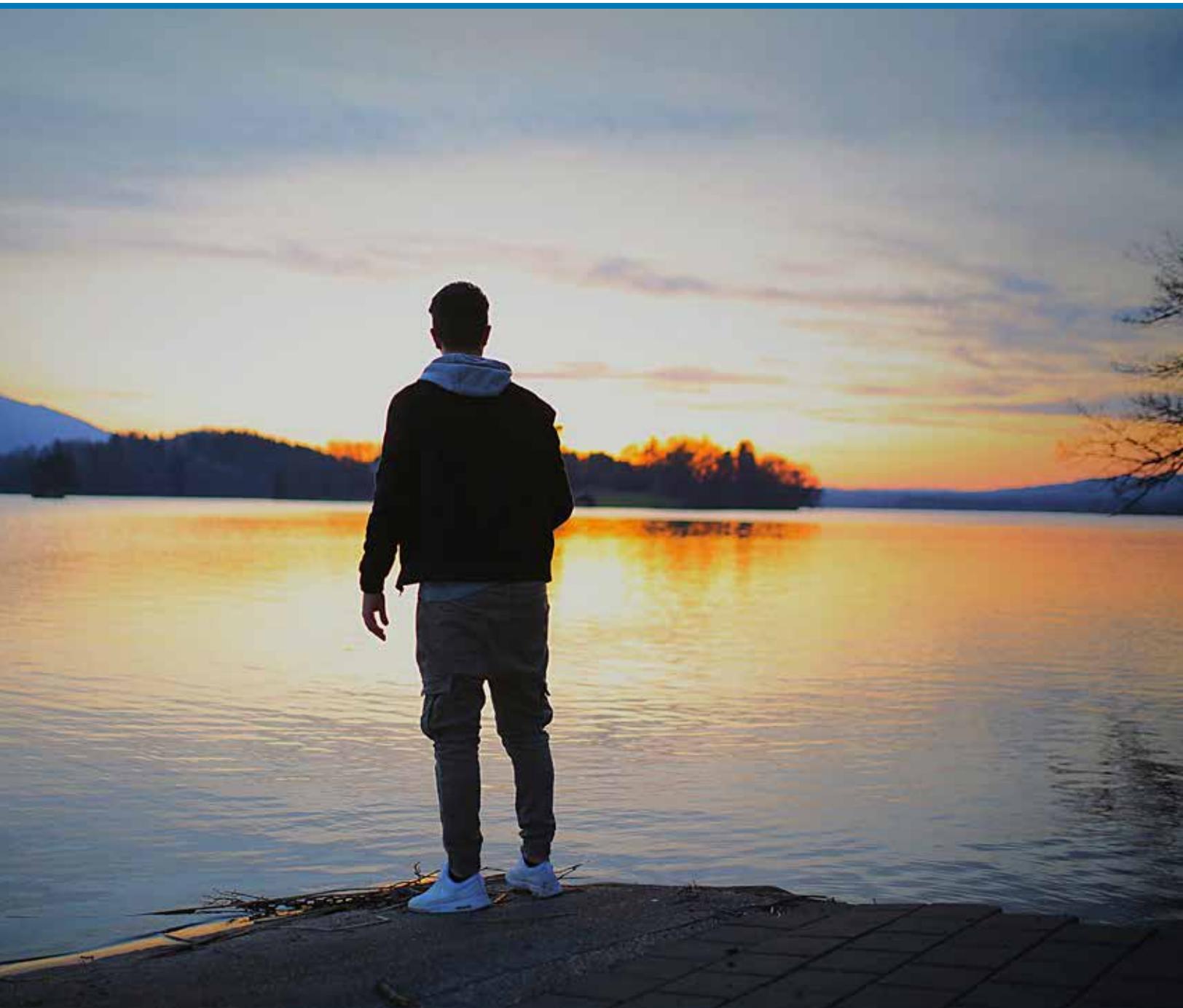


Trauma Informed & Clinically Focused Dual-Diagnosis Treatment



RED OAK[®]
R E C O V E R Y

THE WILLOWS[®]
at RED OAK RECOVERY

“At Red Oak Recovery® and The Willows, we are committed to providing developmentally specific, state of the art, and clinically sophisticated treatment.”

— Jack Kline, MS, LPCS, LCAS, CCS, CTT-2, MAC
President & Founder

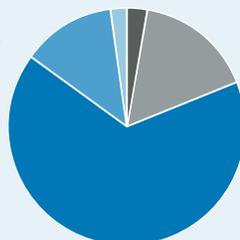


Red Oak Recovery® (ROR) and The Willows at Red Oak Recovery® are comprised of highly skilled, dedicated and caring addictions professionals focused on providing a safe and healing environment for young adults and their families to begin the recovery process from alcohol and other drugs. Through the integration of experiential and clinical modalities, Red Oak Recovery® engages our clients in the process of discovering healthy alternatives to their limiting beliefs and self-destructive behaviors.

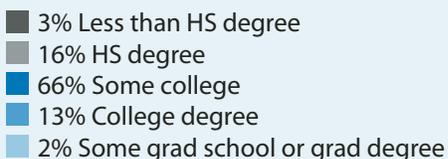
ROR also is committed to the rigorous evaluation of therapeutic programming. Thus, in cooperation with the Center for Research, Assessment, and Treatment Efficacy (CRATE; Asheville, NC) and the Arkansas Interdisciplinary Sciences Laboratory (ArKIDS; University of Arkansas), ROR is collaborating on a rigorous and comprehensive treatment outcome study, investigating the effectiveness of adventure programming for young adults with substance use disorders. Using state-of-the art assessment, sampling, and retention techniques, the research team began enrolling consenting men and women in the outcome study in 2015. 256 young adults have participated to date; data collection will continue indefinitely, as ROR strives to advance the empirical understanding of how clients respond to therapeutic interventions and what factors influence their recovery over time.

Phase one of the study includes a pre-treatment assessment, conducted when clients present for admission to ROR and a post-treatment assessment, completed when clients graduate from the program. For phase two, which includes conducting follow-up assessments at 3- and 12-months post-treatment, clients are tracked and assessed as they navigate additional recovery programs, sober living environments, and re-entry into their communities. Assessments include multiple standardized instruments, measuring the extent and severity of substance use, as well as factors influencing therapeutic response, such as comorbid psychopathology, traumatic stress, social support, therapeutic satisfaction, and affective intensity. Lastly, clients report on skill acquisition, including mindfulness and emotion regulation. Understanding the young adults served at ROR, including their response to treatment, allows for the highest quality of services, with the strongest evidence base, to be provided to clients and their families. It is this commitment to understanding clients and their families which makes ROR a leader in the field of young adult substance abuse treatment.

Study Group Demographic Information:



Years of Education:



Marital Status:



Study Results: 2015-2018

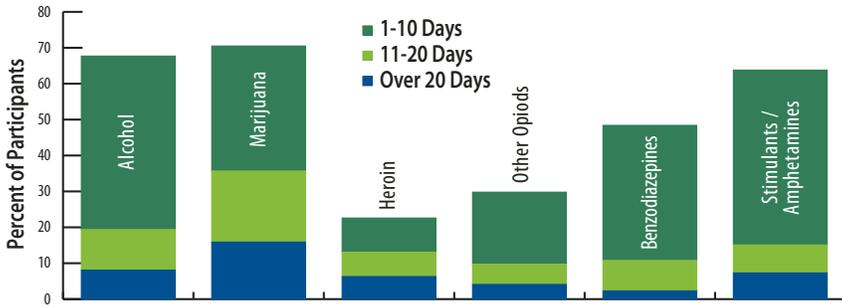


Figure 1: Pre-treatment Frequency of Substance Use Across Main Substances

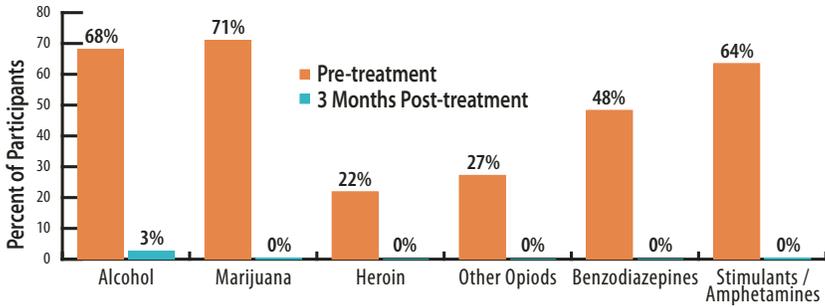


Figure 2: Any Use of Select Substances by Participants in Past 30 Days

Note: at 3 month follow up assessment, participants reported the following substance use (in past 30 days):

- 1 participant reported "other amphetamine" use all 30 days (0.4%)
- 1 participant reported marijuana use 5 out of 30 days (0.4%)
- 6 participants reported drinking 1-5 days of the past month (2.6%)

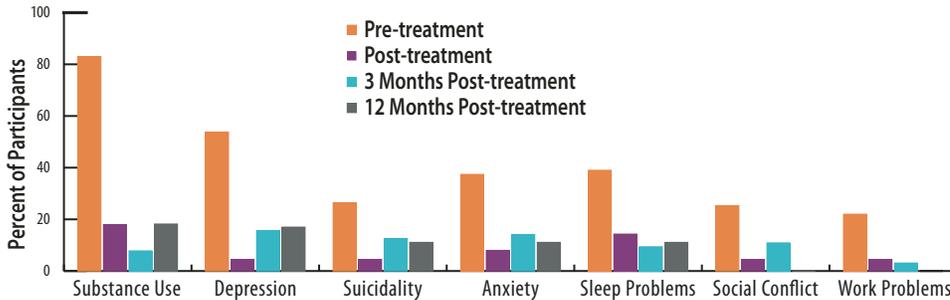


Figure 3: Percent of Clients Reporting Highly Significant Problems

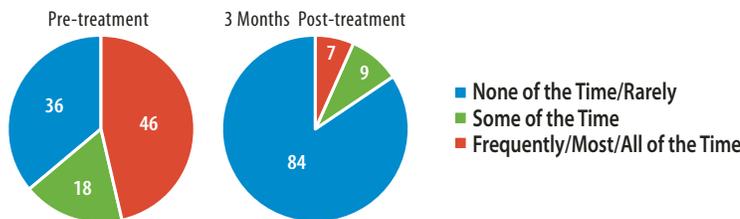


Figure 4: Participants' Strong Urges to Use Substances

Figure 1: Graph depicts the *frequency* and *types* of substances used before clients enrolled at ROR. The most frequently used substance was marijuana, with half of the clients also reporting abuse of anxiolytic medication, 65% abusing stimulant medication, and 50% of clients reporting abuse of opioid substances. Two-thirds of the participants reported alcohol use.

Figure 2: Graph depicts the *type* of substances used by clients, in the month before admission to ROR and 3-months following graduation from ROR. Of note, only 8 participants reported any substance use at 3-months post-treatment

Figure 3: Graph depicts the percentage of participants who report highly significant (i.e., > 2 SDs above the mean; 98th percentile) symptoms and problems. Of note, clients report marked symptoms of substance use disorders, depression, anxiety, and sleep disruption. Clients evidence substantial improvements in all measured areas at graduation and generally maintain improvements at 3- and 12-months post-treatment. Symptoms of substance use disorders reflect cognitive impairments, secondary to substance use (e.g., intense urges, lapse in motivation, distorted patterns of thinking), as well as the frequency and severity of substance use. Thus, clients may report significant symptoms, even in the absence of actual use.

Figure 4: Cravings or intense urges to use substances are important predictors of relapse. Again, clients evidence significant improvements in the frequency of cravings, from pre-treatment to 3-months post-treatment.

Number of psychiatric prescription medications at admission:

- 0 medications = 44%
- 1 medication = 20%
- 2-4 medications = 31%
- 5 or more medications = 3%

Study Group Rehabilitation History:

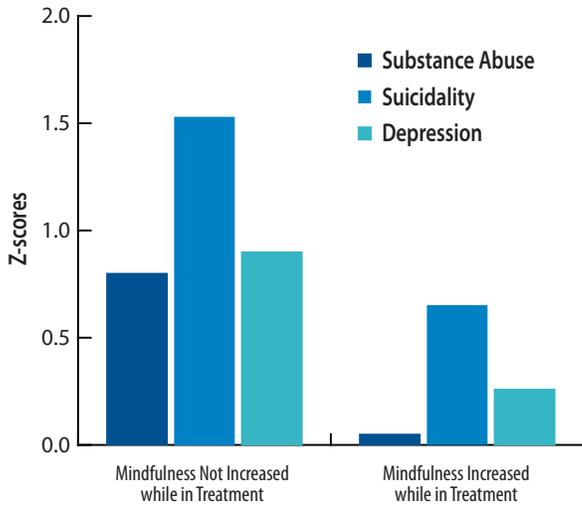
Times in drug/alcohol rehabilitation programs before Red Oak Recovery®

- 59% Zero
- 23% Once
- 11% Two to four
- 3% Five or more

Number of outpatient therapists seen before Red Oak Recovery®

- 11% Zero
- 28% One
- 44% Two to four
- 15% Five or more

Impact of Mindfulness Skills on Substance Use and Depression



“Our approach is based on compassion, respect, dignity and rapport.”

— Jack Kline, MS, LPCS, LCAS, CCS, CTT-2, MAC
President & Founder

Summary of Research Findings

Upon admission to ROR, the majority of clients were consistently using alcohol, marijuana, and stimulant and/or anxiolytic medications (not as prescribed by their physician), with 50% of clients reporting opioid use as well. Eighty percent of clients, at admission reported symptoms of substance use which exceed that of 99% of the population, as well as significant depression, anxiety, and sleep disruption. At graduation from ROR, clients reported highly significant improvements across these areas and all other areas of functioning. Of note, these improvements were maintained when clients were assessed at their first follow-up assessment (3-months post-treatment). Importantly, less than 4 % of clients reported any substance use at this assessment, with upwards of 90% of clients maintaining their recovery program. Mindfulness is a component of treatment at ROR and thus, was measured to gauge skill acquisition and impact on sobriety and psychopathology. The majority of clients demonstrated improved mindfulness skills, from pre- to post-treatment and importantly, these skills were associated with improvements in functioning. More specifically, clients who demonstrated the greatest improvement in mindfulness skills also demonstrated the greatest improvement in symptoms of depression, suicidality, and substance use disorders, when compared to clients who did not improve their skills. This suggests that skills associated with a mindful approach to recovery may be an active treatment component and integral to successful maintenance of sobriety for young adults. As data collection continues, we look forward to presenting a comprehensive review of findings, including clients’ functioning 12-months after their graduation from ROR.

The Center for Research, Assessment, and Treatment Efficacy (CRATE; Asheville, NC) is a clinical service and psychological research organization, committed to the provision of data-driven assessment and evaluation, empirically-supported mental health treatment, and the interface between science and practice. The Research Division at CRATE, directed by Sarah “Salli” Lewis, Ph.D. provides research and outcome evaluation to organizations, programs, and individuals, consultation and training, and a comprehensive research immersion experience to doctoral and masters-level psychology graduate students.



14 S. Pack Square, Suite 505
Asheville, NC 28801
828.231.3297 • www.createnc.com

For additional information contact:

Sarah “Salli” Lewis, Ph.D.
Director, Research Division at CRATE
slewis@createnc.com

Red Oak Recovery® and The Willows at Red Oak Recovery®
866.831.9107
www.redoakrecovery.com