Treatment Efficacy of Wilderness Therapy

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WHAT IS WILDERNESS THERAPY?

Although the specific therapeutic orientation, living environment, and daily activities vary, wilderness therapy programs (WTPs) share many key components and theoretical foundations (Gass et al., 2012; Russell, 2001). Broadly speaking, wilderness therapy programs stand at the crossroads between adventure programming and residential treatment, though they are not synonymous with broader "adventure therapy" (Tucker et al., 2023). WTPs provide a 24-hour intermediate level of care that typically incorporates individual, group, and family therapy into an immersive outdoor setting with limited modern conveniences and group living (Tucker et al., 2016).

TREATMENT EFFICACY

Wilderness therapy programs are intensive and can be a large financial investment for families in crisis. Efficacy research is crucial to the ethical operation of such programs and necessary for a future of insurance reimbursement and increased access. Limited existing research has demonstrated statistically and clinically significant improvement in both internalizing and externalizing symptomology, as well as suicidal ideation, social conflict, and sleep disruption (Russell, 2002; 2003; 2005; Lewis et al., 2007; Bettmann et al., 2012).

CLINICAL UTILITY

Despite growth in research on wilderness therapy in the past decade, a gap still remains regarding what type of client and what clinical issues are best served by this modality (Tucker et al., 2022). Only two studies to date have explored individual characteristics in relation to treatment outcomes in wilderness therapy. Magle-Haberek et al. (2012) found gender and intake functioning as significant predictors of improvements, with female adolescents showing greater improvement than male adolescents and those with greater symptom severity at intake showing greater improvement than those with lower symptom scores at intake.

While factors such as intelligence, academic ability, presence of learning disabilities, presence of externalizing behaviors, and degree of pathology have all been shown to predict outcomes in the broader category of residential treatment (Behrens & Satterfield, 2006; Connor et al., 2002; Gorske et al., 2003), the individual variance in wilderness therapy efficacy remains a mystery.

METHODS

PARTICIPANTS

Participants were adolescents who completed treatment at a wilderness therapy program in the Southeast. Adolescents completed the MMPI-A-RF as a part of psychological evaluation before or during treatment. Adolescents and their parents also completed additional measures of therapeutic process, treatment effectiveness, family functioning, and psychopathology, including the Treatment Outcome Package (TOP; Kraus et al., 2005) at two time points: within 7 days of entering treatment and within 7 days of graduating from treatment.

Quick Facts

- Sample size (*n*) = 202 (55.4% female)
- Average age at treatment start = 15.7 years
- Average length of stay in treatment = 87 days

MEASURE

Treatment Outcome Package (TOP)

The TOP is a behavioral health and treatment outcome measure specifically designed for natural settings (Kraus et al., 2005). It is written at a 5th grade reading level and takes approximately 15 min to complete in its entirety. The TOP is scored based on weightings from confirmatory factor analytic studies (Kraus et al. 2005, 2010). Domain scores are then transformed into Z scores based on general population means and standard deviations

The TOP for Adolescents consists of 11 domains: ADHD, Conduct, Depression, Mania, Psychosis, Substance Abuse, Social Conflict, Sleep, Suicide, Violence, and School Functioning.

RESULTS

At time of admission, girls had significantly higher levels depression, psychosis, social conflict, and suicidality than boys, while boys had higher levels of substance abuse.

TREATMENT EFFICACY

The efficacy of wilderness therapy was evaluated through two-sided paired t-tests comparing pre-treatment and post-treatment scores across 11 symptom domains: ADHD, Conduct, Depression, Manic, Psychosis, Substance Abuse, Social Conflict, Sleep Problems, Suicidality, Violence, and Work/School Functioning. Ten of the 11 domains showed significant reduction from pre-treatment to post-treatment (changes in ADHD symptoms were not statistically significant.) See Figure 1.

IMPACT OF GENDER ON TREATMENT EFFICACY

A mixed factorial ANOVA revealed significant gender differences in treatment outcomes on four domains: depression, psychosis, substance abuse, and suicidality. However, pre-treatment levels were controlled for, only suicidality had a significant gender difference. A post-hoc comparison revealed that girls showed a significantly greater decrease in suicidality compared to the decrease in boys' symptoms. See Figure 2.

Figure 2. Suicidality Change by Gender

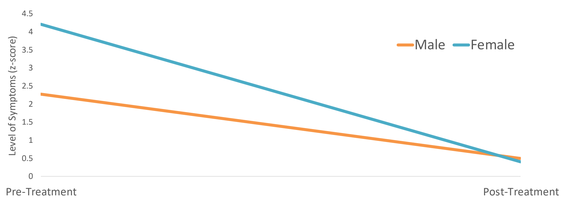
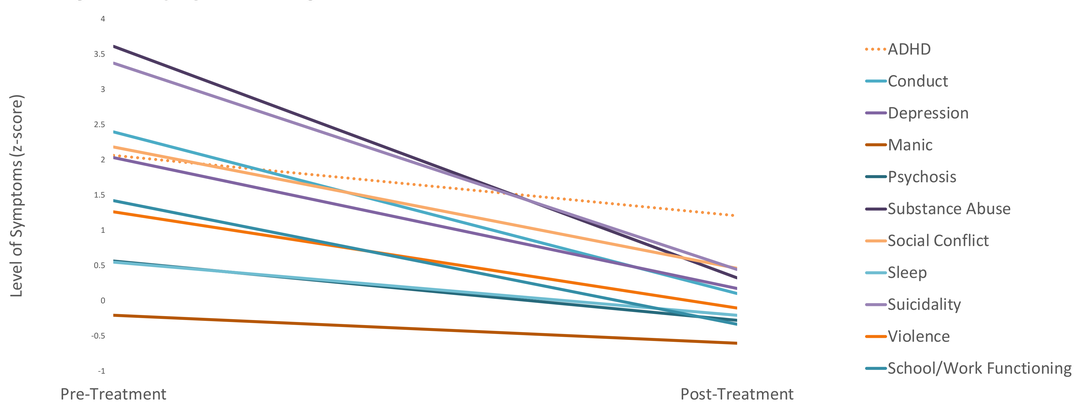


Figure 1. Symptom Change from Pre- to Post-Treatment



DISCUSSION

This study supports findings from previous research on wilderness therapy, suggesting that wilderness therapy is an effective treatment modality for a wide variety of presenting symptomology. As noted in prior research, girls tend to show greater improvement due to more severe symptoms at the outset ("more room to improve"), but treatment creates clinically significant change even when the severity of initial symptoms is controlled.

Interestingly, the improvements in suicidality are in somewhat opposition to many wilderness program admission criteria: some programs will not admit adolescents with recent suicide attempts or active intent. Further research is needed to weigh potential safety risks with the demonstrated benefit.

A follow-up study will be completed to explore clinical utility of wilderness therapy based on pre-treatment symptom profile with the MMPI-A-RF.

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