



MOUNTAIN VALLEY

TREATMENT CENTER



2023

Report on Outcomes

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Mountain Valley Evaluation Report

Mountain Valley is a residential facility providing specialized treatment for anxiety and related disorders for adolescents and young adults of all genders between the ages of 13–20. Mountain Valley uses evidence-based programming in a milieu structure to help residents learn how to face their anxiety, lean into

their anxiety instead of avoiding it, and return to engaging meaningfully in their lives despite their anxiety. The center's rural New Hampshire setting and family atmosphere foster social interaction and relationship building. Recreational and physical fitness programs complement regular therapeutic work.

Evaluation

Comprehensive, evidence-based assessment is the foundation of effective clinical intervention. Such evaluation is a prerequisite for creating meaningful individual treatment plans and helps to drive programmatic decision-making. Mountain Valley is dedicated to being accountable to their residents, families,

staff, and stakeholders. Part of that accountability is assessing the health of residents before, during, and after treatment to ensure the program is accomplishing what it sets out to do. This type of outcomes evaluation helps make clear how Mountain Valley benefits residents and substantiates the hard work and perseverance of staff, residents, and families.

2023 Report

This report summarizes data from five different assessments that Mountain Valley residents completed between January 2019 and April 2023 reflecting markers of mental health and well-being, including anxiety, depression, obsessions and compulsions, and general adjustment. Data was gathered from assessments completed at admission, mid-treatment (average of any assessments completed between day 30 and day 90 of

treatment), discharge, and one year after completion of the program. The number of residents who completed a measure reflects all residents who completed the measure at any time point. Comparisons made across two time points include only the subset of residents who completed the measure at both points of time in the analysis (e.g., residents who completed assessments at both admission and mid-treatment). Significance testing and effect size results (Cohen's *d*) for each group comparison are provided in the footnotes.

Results

Across measures, the results indicate significant improvements in residents' anxious, depressive, and obsessive-compulsive symptomatology as well as significant improvements in their own perceptions of distress, impairment, and personal improvement. In addition to the

significant gains realized over the course of treatment, reductions in symptoms were maintained on follow-up measures completed one year after completing the program, suggesting that this relatively short-term residential program can effect lasting change in the lives of adolescents and young adults.

Anxiety

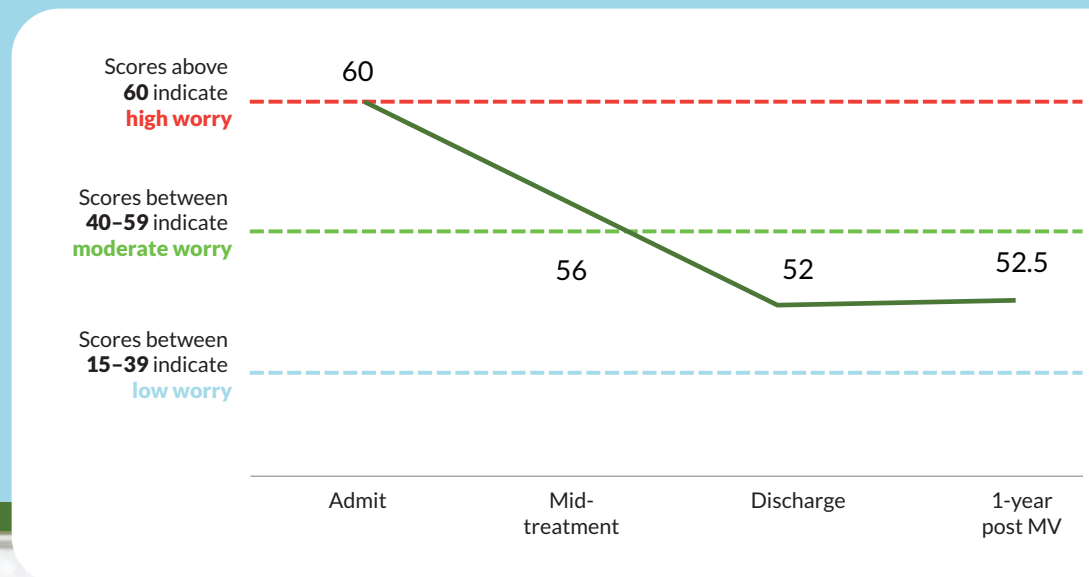
Symptoms of anxiety were measured using the Penn State Worry Questionnaire (PSWQ). Since 2019, 272 Mountain Valley residents completed this measure at least once between admission and discharge. PSWQ scores significantly decreased from admission to mid-treatment¹ and again from

mid-treatment to discharge², representing a clinically significant decline in impairing and distressing symptoms of anxiety. By mid-treatment, residents' anxiety on average fell from the "high worry" range to the "moderate worry" range; these gains were maintained at the 1-year post-treatment follow-up.³

¹t(217) = 7.88, p < .001, d = .53

²t(130) = 5.65, p < .001, d = .49

³t(19) = 0.29, p = .78



Obsessive-Compulsive Disorder

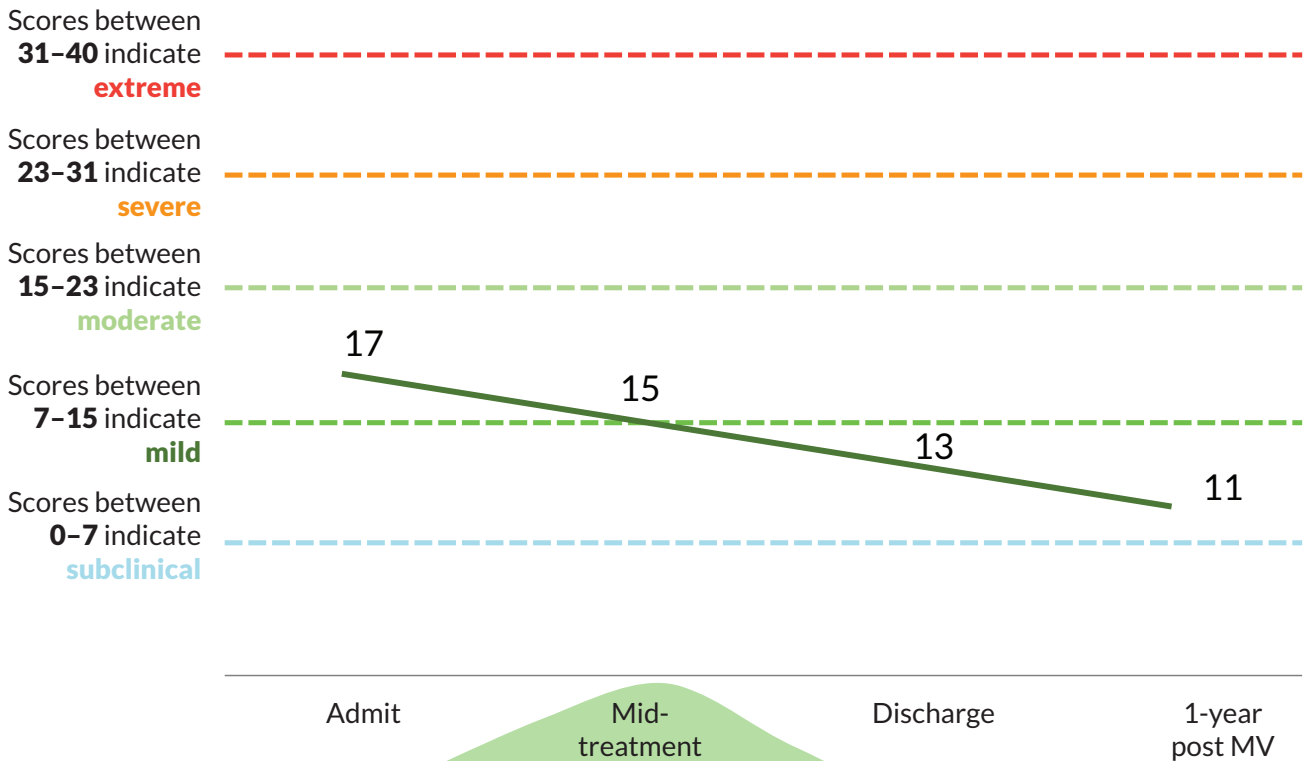
The presence and severity of obsessions and compulsions related to Obsessive-Compulsive Disorder (OCD) were measured using the Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS). Since 2019, 166 Mountain Valley residents completed this measure at least once between admission and discharge. Scores presented below are a composite of obsessive and compulsive symptom severity. CY-BOCS scores

significantly decreased from admission to mid-treatment⁴ and again from mid-treatment to discharge⁵, representing a clinically significant decline in impairing and distressing symptoms of OCD. By mid-treatment, residents' OCD symptoms on average fell from the "moderate severity" range to the "mild severity" range; these gains were also maintained at the 1-year post-treatment follow-up.⁶

⁴t(93) = 5.96, p < .001, d = .61

⁵t(49) = 3.28, p < .01, d = .46

⁶t(5) = 1.28, p = .26



Depression

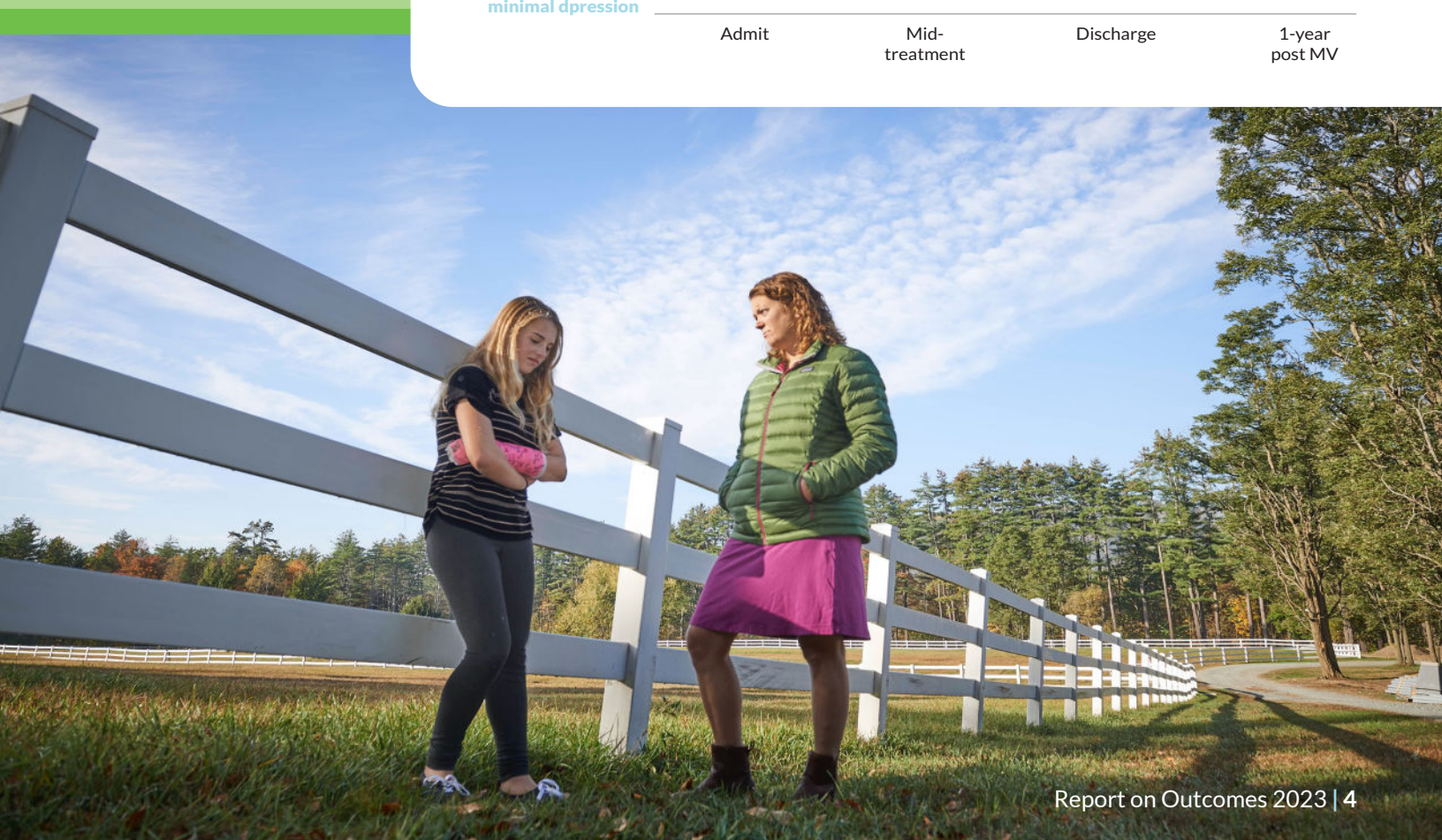
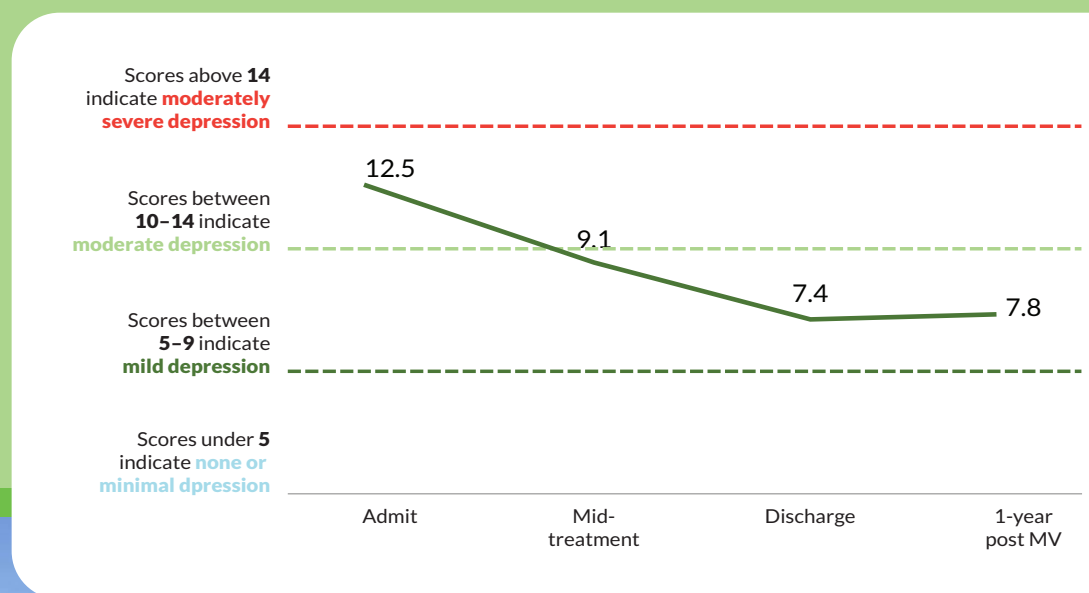
Depressive symptoms were measured using the nine-item Patient Health Questionnaire (PHQ-9). Since 2019, 262 Mountain Valley residents completed this measure at least once between admission and discharge. PHQ-9 scores, like scores on measures of anxiety and OCD, significantly decreased from admission to mid-treatment⁷ and again

from mid-treatment to discharge⁸, representing a clinically significant decline in impairing and distressing symptoms of depression. By mid-treatment, residents' depressive symptoms on average fell from the "moderate severity" range to the "mild severity" range; these gains were also maintained at the 1-year post-treatment follow-up.⁹

⁷t(208) = 8.93, p < .001, d = .62

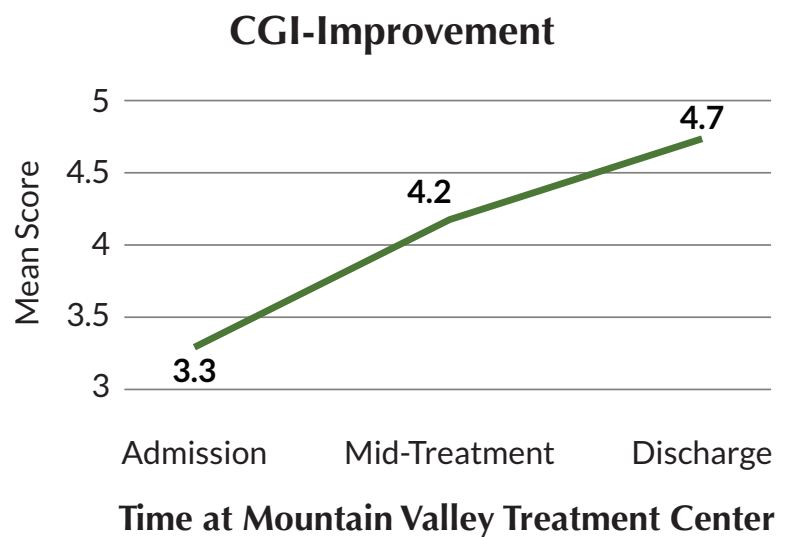
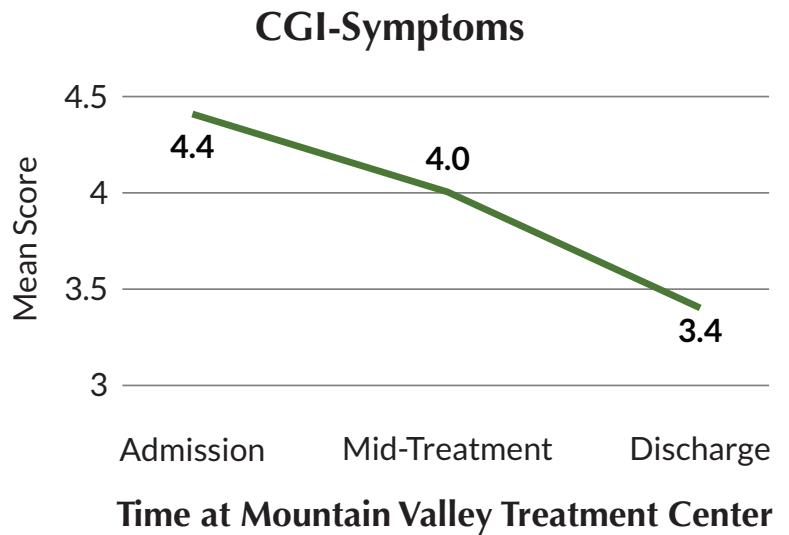
⁸t(118) = 4.31, p < .001, d = .39

⁹t(17) = 0.29, p = .63



Residents' Perception of their Problem Severity and Symptom Improvement

Residents completed two subscales of the Clinical Global Impressions Scale (CGI) at multiple timepoints across their stay at Mountain Valley to assess their own perceptions of their current problem severity (Severity subscale; CGI-S) and symptom improvement (Improvement subscale; CGI-I). Since 2019, 276 Mountain Valley residents completed the CGI-S and 247 residents completed the CGI-I at least once between admission and discharge. CGI-S scores (higher score indicates more severe problems) significantly decreased from admission to mid-treatment¹⁰ and again from mid-treatment to discharge¹¹, indicating that residents perceived their problems to be less severe during their treatment than when they began treatment, and even less severe at the end of treatment compared to both admission and mid-treatment. CGI-I scores (higher score indicates more improved symptoms) significantly increased from admission to mid-treatment¹² and again from mid-treatment to discharge¹³, indicating that residents believed their symptoms to be continuously improving across their stay at Mountain Valley.



¹⁰t(223) = 4.39, p < .001, d = .29

¹¹t(131) = 6.51, p < .001, d = .56

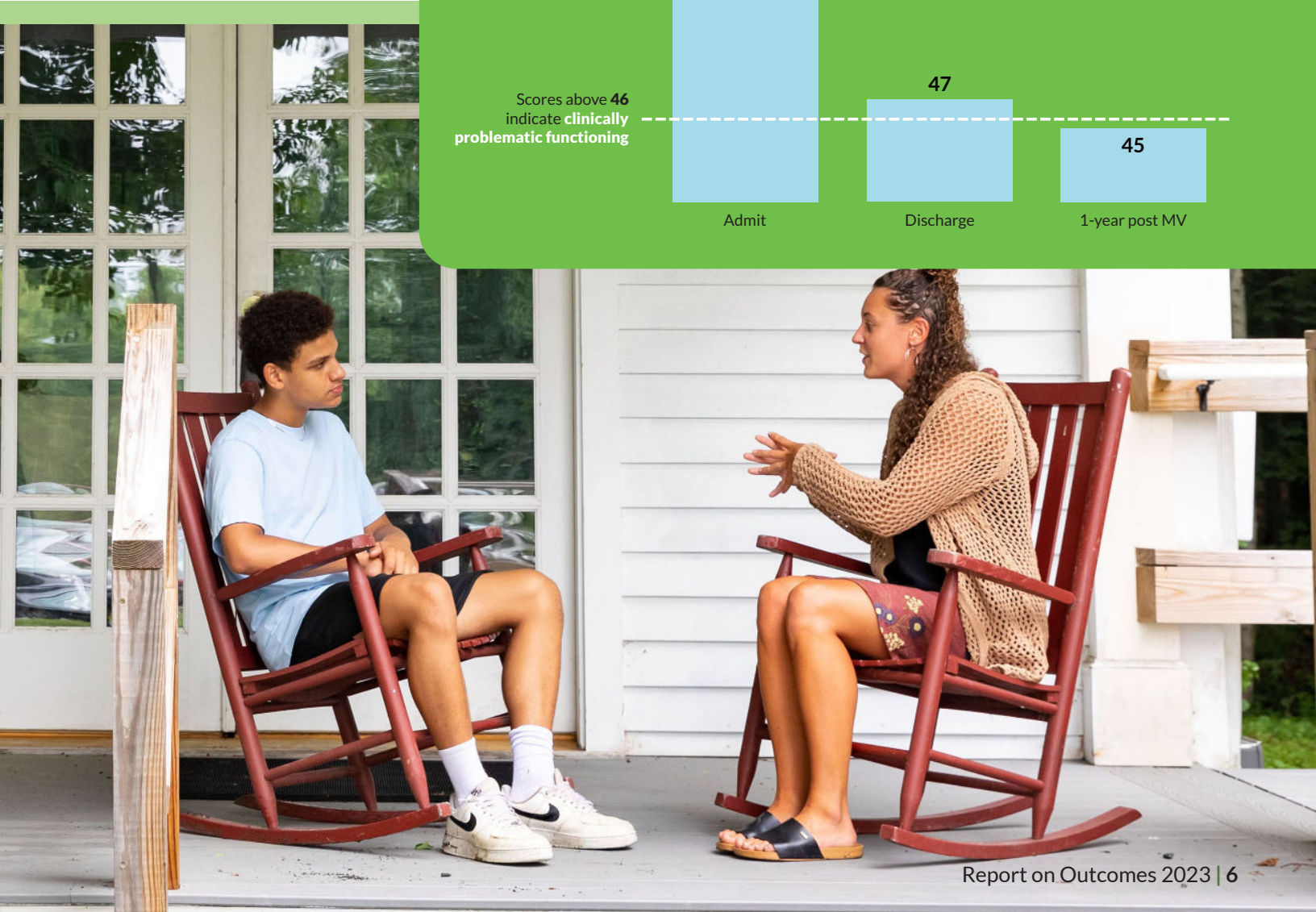
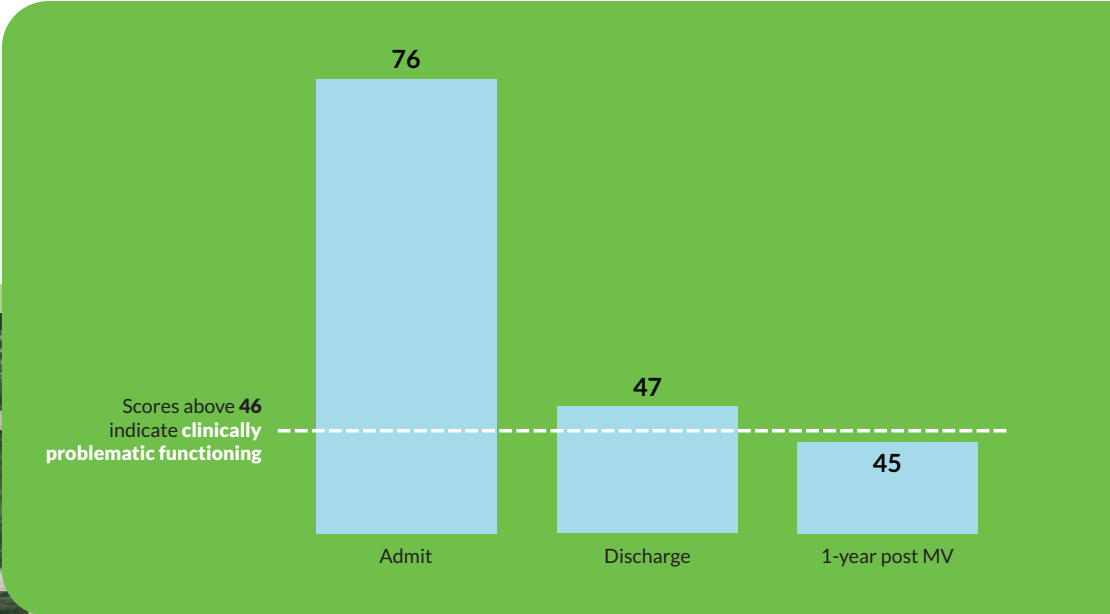
¹²t(199) = -9.93, p < .001, d = .70

¹³t(131) = -6.04, p < .001, d = .52

Overall Mental and Behavioral Health

Finally, youth completed the Youth Outcomes Questionnaire (YOQ), which assesses mental and behavioral health, relationship quality, and physical well-being. Domains include Interpersonal Distress, Somatic Symptoms, Interpersonal Relations, Social Problems, and Behavioral Dysfunction. Composite scores above 46 indicate clinically significant problems in general functioning.

Since 2019, 212 Mountain Valley residents completed the YOQ at least once. Data are collected in aggregate, so significance testing assumptions could not be tested; however, residents score much lower on the composite measures of total problems at discharge than at admission, and scores at the 1-year follow-up are on average below the threshold score of 46.



Summary

The results of the evaluation indicate that residents at Mountain Valley experience improved mental health over the course of treatment. Their symptoms are reduced, and their perceived improvement

increases. Further, among alumni after the program, mental health scores tend to be close to end-of-treatment levels, suggesting sustained treatment gains.



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