



**MOUNTAIN VALLEY**  
TREATMENT CENTER

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**REPORT ON TREATMENT  
OUTCOMES 2020**

# MOUNTAIN VALLEY EVALUATION REPORT

**About Mountain Valley.** Mountain Valley is a residential treatment program that offers evidence-based programming to young people who experience anxiety, OCD, and related issues that impact daily functioning. The center's 'unplugged' mountain setting and family atmosphere foster social interaction and relationship building. Recreational and physical fitness programs complement regular therapeutic work.

**Evaluation.** Mountain Valley is dedicated to being accountable to their clients, families, staff, and other stakeholders. Part of that accountability is measuring the health of clients before, during, and after treatment. This can help understand how Mountain House helps clients, validate the trust placed in them by clients and families, and substantiate the hard work of staff. Evaluation also fosters quality improvement via evaluation-informed individual treatment and program decisions.

**This Report.** This report summarizes data from Mountain Valley clients between 2013 and 2020. Some surveys (e.g., PTSD) were measured from 2013, others (e.g., YOQ) from 2019. All results are from clients who completed at least 60 days of treatment. Data were taken from surveys done within 2 weeks of admission, one week either side of 2- and 3-months, and at discharge. Surveys done at 3-Months and Discharge were collapsed into one timepoint, data from duplicates within that timepoint were taken from the survey date closest to discharge.

Wherever possible, data are '*longitudinal*'; from the same cohort of clients at every survey time, and are displayed with line graphs.



'*Cross-sectional*' analyses were done when sample sizes were too small for longitudinal; data from all clients who completed a survey at any timepoint were included, whether or not he or she

completed a survey at any other timepoint. These are shown with bar graphs.

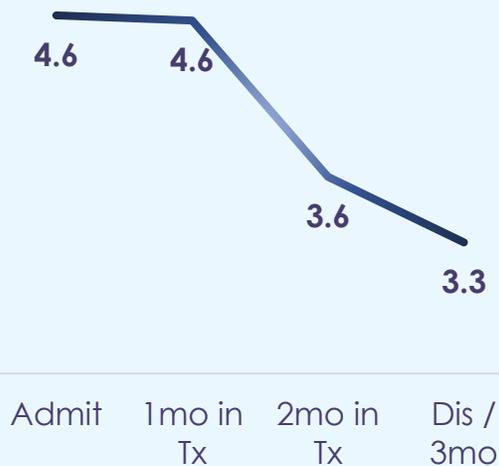
**Results.** This evaluation shows that clients tend to improve their well-being significantly, often with a 'large effect', statistically speaking. Cross-sectional analyses suggest treatment gains are maintained post-program.

# SPOT-CHECKS ON HEALTH

The CGI, the Clinical Global Impressions Scale<sup>1</sup>, tracks client symptoms and improvement. There are two questions, scored from 1 - 7. The first is, '**how severe is the problem for which you came here?**'; lower scores indicate less symptomology. The second question asks, '**compared to before you started treatment, how have your symptoms changed?**'; higher scores indicate more improvement.

Change over time for 34 'cohort' client scores indicate significant improvement in symptoms and higher perceived change over time<sup>2</sup>.

**CGI-Symptoms– Client Self-Report**



**CGI-Improvement – Client Self-Report**



*Client's perceived problems decrease during treatment and they experience greater improvements over time.*

Clinician observed CGI scores align well with client reports. On the CGI-S, 122 clinicians reported an average of **4.2** at admission and **3.2** at discharge. The CGI-I averages were **3.3** and **5.0** from admission to discharge<sup>3</sup>.

<sup>1</sup> Busner, J. & Targum, S. D. (2007). The Clinical Global Impressions Scale: Applying a research tool in clinical practice. *Psychiatry MMC*, 4, 28-37.

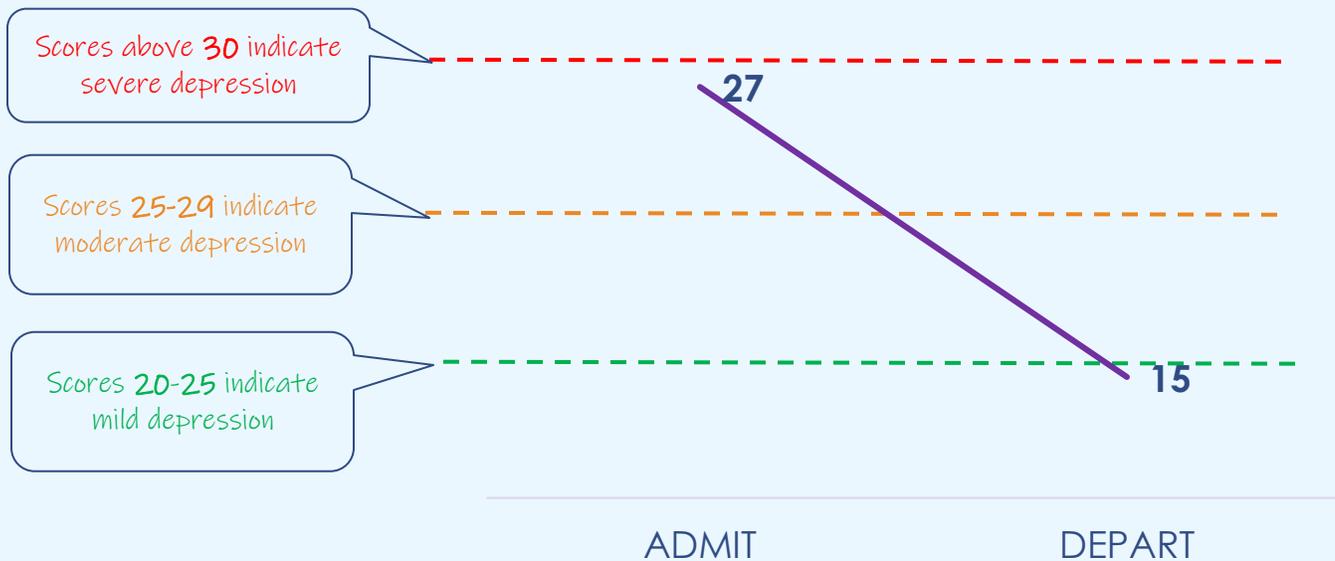
<sup>2</sup> CGI-S ( $F_{(33)}=4.6, p=.04, \eta^2=.12$  [medium effect]); CGI-I ( $F_{(32)}=11.9, p<.001, \eta^2=.27$  [large effect])

<sup>3</sup> CGI-S ( $F_{(121)}=38.4, p<.001, \eta^2=.24$  [medium effect]); CGI-I ( $F_{(109)}=218.4, p<.001, \eta^2=.67$  [large effect])

# DEPRESSION

The MDI, The Major Depression Inventory<sup>4</sup>, measures depressive symptoms. Clients at Mountain Valley enter treatment with moderate depression, and improve to healthier than mild depression, a large and statistically significant reduction<sup>5</sup>.

## MDI, Matched at Admit & Discharge



Data from 47 clients who responded to surveys post-treatment but who are not necessarily part of the cohort above scored 16 on the MDI. This suggests that the treatment gains made during treatment are sustained.

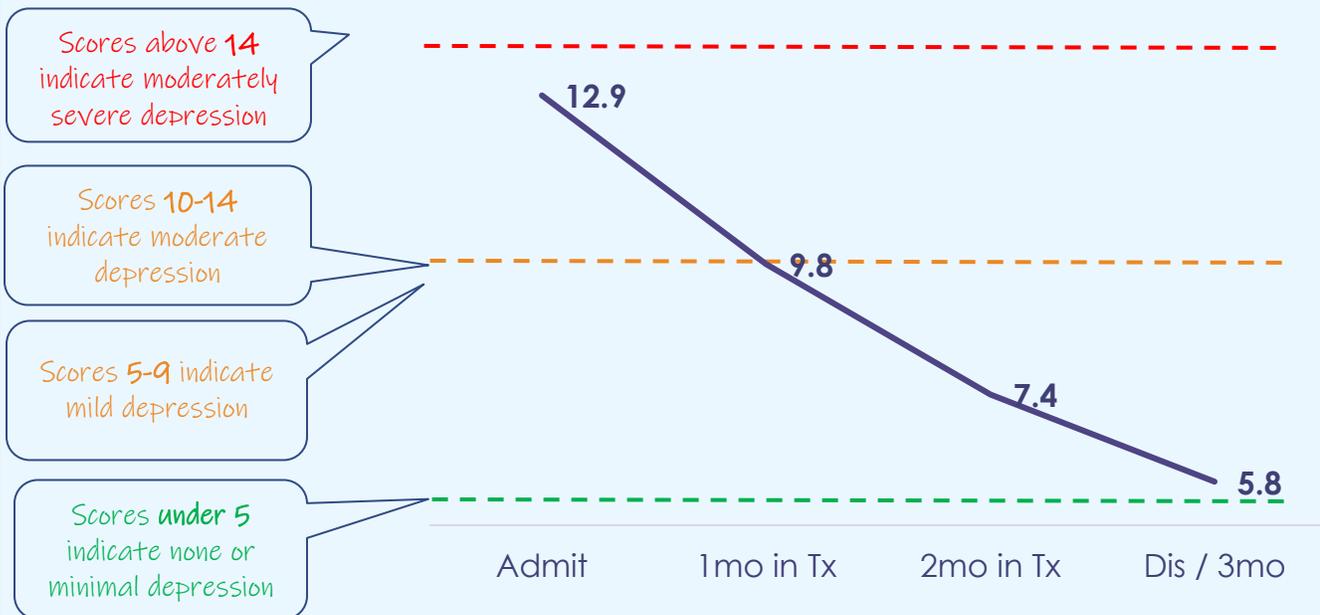


<sup>4</sup> Olsen, L. R., Jensen, D. V., Noerholm, V., Martiny, K., Bech, P. (2003). The internal and external validity of the Major Depression Inventory in measuring severity of depressive states. *Psychological Medicine*, 33, 351-356.

<sup>5</sup> RMANOVA ( $F_{(42)}=34.1$ ,  $p<.001$ ,  $\eta^2=.45$ [large effect])

# DEPRESSION

**PHQ-9.** Depression is also measured using the Patient Health Questionnaire, the PHQ-9. At Mountain Valley, 25 clients completed this survey at all administration times from admission to discharge. Their scores indicate significant improvement<sup>6</sup>, as seen below.



After Mountain Valley, 31 clients (not all from the above cohort) scored an average of 7.4. This indicates a slight increase compared to those at discharge, but scores in the mild depression range.

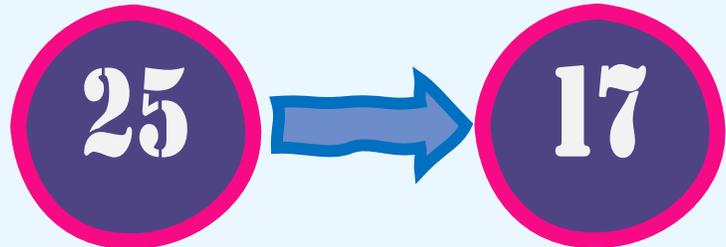
*Clients at admission score in the moderately depressed range and improve steadily over the course of treatment. Clients after treatment score in the mild depression range.*

<sup>6</sup> RMANOVA ( $F_{(24)}=22.4$ ,  $p<.001$ ,  $\eta^2=.48$  [large effect])

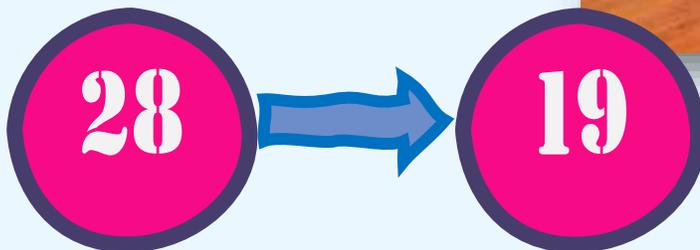
# POST-TRAUMATIC STRESS

The PTSD-RI (The UCLA PTSD Reaction Index) measures exposure to trauma and severity of PTSD symptoms. Higher scores indicate higher severity. At Mountain Valley, 26 cohort clients completed the PTSD-RI at admission and discharge. Their scores improved from 25 to 17, a significantly large improvement<sup>7</sup>.

## PTSD - Client Self-Report



113 clinicians completed the PTSD-RI as observers of clients. Their scores align well with clients and show marked improvement from start to end of program<sup>8</sup>.



## PTSD – Clinician Report

*Clients & clinicians agree, PTSD symptoms decrease significantly over the course of treatment.*

<sup>7</sup> RMANOVA ( $F_{(25)}=9.7, p=.005, \eta^2=.28$ [large effect])

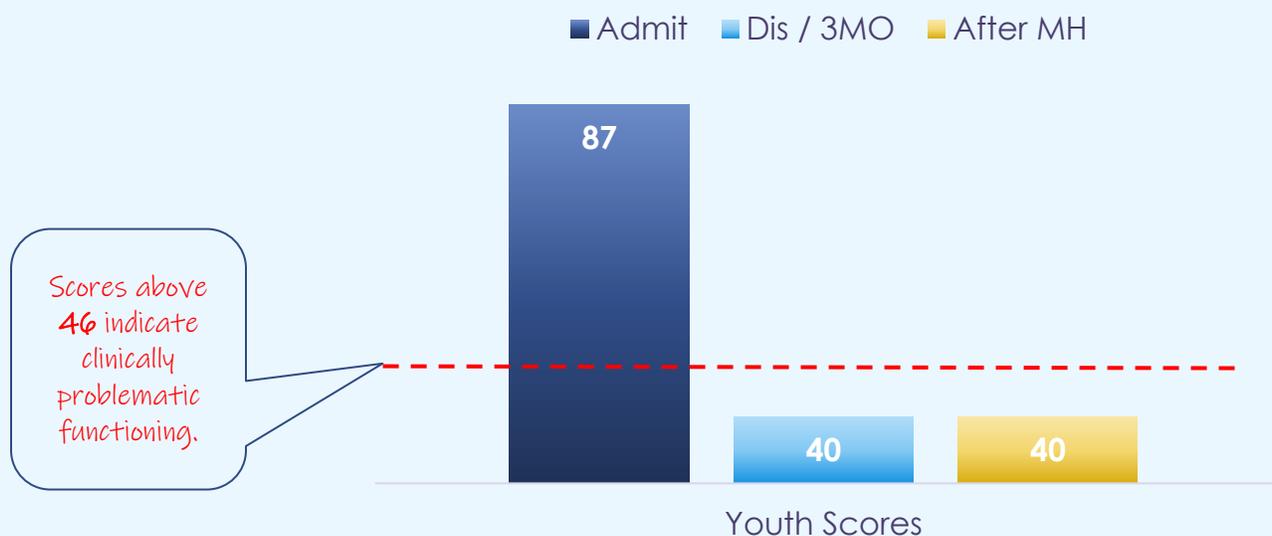
<sup>8</sup> RMANOVA ( $F_{(112)}=44.8, p<.001, \eta^2=.29$ [large effect])

# MENTAL HEALTH & BEHAVIOR



The Youth Outcomes Questionnaire measures mental, behavioral, relationship, and physical well-being. This is a new measure, so there are fewer surveys completed, but enough to get a cross-sectional view of youth health before, at the end, and after Mountain Valley. Scores above **46** are problematic.

At intake, clients report problematic functioning in multiple domains of life. At departure and post-tx, youths show non-problematic averages. This is promising, but there are only 10 clients at each measurement time, so results must be taken with caution<sup>9</sup>.



<sup>9</sup> ANOVA ( $F_{(2,8)}=8.9$ ,  $p=.001$ ,  $\eta^2=.39$  [large effect])

## SUMMARY

The results of the evaluation indicate that clients 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.

