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Sierra Tucson VA Outcomes Q3 2023

2023-10-31

This brief report provides data on the treatment outcomes for Sierra Tucson's veteran patients for July - September 2023. These results provide more focused information on U.S. Military Veterans based on data and analyses prepared on Q3 2023 treatment outcomes at Sierra Tucson.

Data for this report was collected via the Sierra Tucson Measurement Based Care (MBC) program, which assesses patient outcomes in residential treatment every two weeks.

Patient Details

Below are basic demographic characteristics of the patients who were veterans and completed the assessments:

- There are 38 people included in this sample.
- The average age was 44 years old, with a range from 23 to 65 years old.
- There were 31 men, 6 women, and 1 nonbinary individuals.

Changes in Mental Health Symptoms

Average changes in mental health symptoms from the start of treatment to the end of treatment were assessed using t-tests. This tests how much the symptoms decrease from start to finish. Note that the p-value for the test indicates statistical significance. If the p-value is less than .05, the change is likely to be reliable if the same type of data were collected again.

All assessment measures were rescaled to range from 0 to 100, so that a fairer comparison could be made across different areas of functioning.

Note that significant changes were seen for all outcomes excepted generalized anxiety disorder (GAD) symptoms.

Outcome	N	Pre Avg	Last Avg	Difference	t	p	sig
PAIN	37	50.6	38.9	-11.7	2.87	0.005	**
DEPR	37	55.6	33.0	-22.6	5.12	< .001	***
GAD	37	59.1	52.5	-6.5	1.42	0.16	n.s.
SLEEP	37	75.2	50.2	-25.0	4.63	< .001	***
STRESS	37	59.1	46.2	-12.8	3.50	< .001	***
PTSD	37	62.9	46.8	-16.0	3.60	< .001	***

Abbreviations: PAIN indicates chronic pain symptoms, DEPR indicates depression symptoms, GAD indicates generalized anxiety disorder symptoms, SLEEP indicates sleep disturbances, STRESS indicates stress levels, and PTSD indicates Post Traumatic Stress Disorder symptoms.

Changes in Cravings for Substances of Abuse

Changes in cravings for substances of abuse were analyzed so that only individuals who started treatment with some level of craving for a substance were analyzed. For example, change in cravings for alcohol was only estimated for people who started treatment with some (non-zero) cravings for alcohol. Scores again ranged from 0 to 100.

The table below provides information on the statistical tests for cravings. The column labeled “N” indicates how many veterans treated at Sierra Tucson in Q3 2023 had cravings for different substances.

Note that significance tests are influenced by the number of people included. When only a few cases (e.g., less than 10) are included, statistical significance is unlikely to be achieved. This reflects not having measured enough people to indicate that a change is reliable. (For example, only one individual had cravings for inhalants. This dropped from 80 to 0 during treatment, but the result was not significant because there weren't enough people studied to estimate a reliable drop in cravings in general.)

Substance	N	Pre Avg	Last Avg	Difference	t	df	p	sig
Overall Craving	27	8.7	3.1	-5.5	3.10	53	0.003	**
Alcohol Craving	19	58.9	16.3	-42.6	4.01	37	< .001	***
Marijuana Craving	12	57.5	8.3	-49.2	3.19	23	0.004	**
Painkillers Craving	7	55.7	17.1	-38.6	1.92	13	0.077	n.s.
Methamphetamine Craving	5	58.0	2.0	-56.0	2.05	9	0.07	n.s.
Cocaine Craving	4	45.0	2.5	-42.5	1.73	7	0.128	n.s.
Stimulants Craving	3	53.3	16.7	-36.7	1.25	5	0.268	n.s.
Heroin Craving	3	76.7	50.0	-26.7	1.02	5	0.355	n.s.
Sedatives Craving	2	45.0	25.0	-20.0	1.00	3	0.391	n.s.
Club Drugs Craving	2	45.0	0.0	-45.0	1.17	3	0.328	n.s.
Hallucinogens Craving	2	50.0	0.0	-50.0	1.32	3	0.278	n.s.
Inhalants Craving	1	80.0	0.0	-80.0	1.00	1	0.5	n.s.

Changes in Indicators of Positive Functioning

Average changes in indicators of positive functioning from pre-treatment to mid-treatment are displayed below. All scores were again rescaled so they range from 0 to 100.

Note that there were statistically significant improvements in all facets of quality of life (QOL) except social QOL. There were also significant improvements in confidence in all types of coping assessed. There were no significant changes seen in attachment style, which has traditionally been a more “trait like” measure (meaning it is stable over long periods of time).

Substance	N	Pre Avg	Last Avg	Difference	t	p	sig
QOL PHYSICAL	37	41.9	61.7	19.8	-4.68	< .001	***
QOL PSYCH	37	37.3	56.3	19.0	-4.99	< .001	***
QOL SOCIAL	37	44.1	50.2	6.1	-1.62	0.11	n.s.
QOL ENVIR	37	52.4	68.8	16.5	-3.81	< .001	***
PROB COPING	37	51.4	62.8	11.4	-3.42	0.001	**
EMO COPING	37	42.6	58.9	16.3	-4.55	< .001	***
SOC COPING	37	42.9	56.4	13.5	-2.95	0.004	**
ATT CLOSE	37	47.3	51.2	3.9	-0.97	0.335	n.s.
ATT DEPEND	37	39.0	47.1	8.1	-1.51	0.136	n.s.
ATT ANX	37	51.7	49.2	-2.5	0.48	0.631	n.s.

Abbreviations: QOL PHYSICAL is physical quality of life, QOL PSYCH is psychological quality of life, QOL SOCIAL is social quality of life, QOL ENVIR is environmental quality of life, PROB COPING is coping with daily life problems, EMO COPING is coping with emotions, SOC COPING is coping through community support, ATT CLOSE is ability to feel close to attachment figures, ATT DEPEND is ability to depend on attachment figures, ATT ANX is anxiety about abandonment by attachment figures.

Conclusions

The overall analyses of outcome data for Sierra Tucson for Q3 2023 indicate that patients' mental health and psychological functioning improve significantly while in residential treatment.

Although all mental health symptoms assessed declined over the course of residential treatment, there were particularly dramatic drops in depression, sleep disturbances, and PTSD symptoms:

- Average depression scores dropped by 41%
- Average sleep disturbance scores dropped by 33%
- Average PTSD scores dropped by 26%

Declines were seen in cravings for all substances of abuse. Drops in the most frequently used substances include:

- Average cravings for alcohol declined by 72%
- Average cravings for marijuana declined by 85%
- Average cravings for painkillers declined by 69%

In the course of residential treatment, large gains were seen in three domains of positive functioning:

- Psychological Quality of Life increased by 51%
- Physical Quality of Life increased by 47%
- Coping with emotions increased by 38%

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2023-10-31

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Methodological Notes

As part of the Comprehensive Psychological Profile (CPP) given through the Measurement Based Care (MBC) program, the following measures were used:

1. PROMIS Pain Interference (PIQ 6b)
2. Center for Disease Epidemiological Depression Scale-Revised (CESD-R)
3. Anxiety (GAD-Q-IV)
4. The PROMIS Sleep Questionnaire
5. Perceived Stress Scale (PSS)
6. Post-Traumatic Stress Disorder Checklist (PCL-5)
7. World Health Organization, Brief Quality of Life survey (WHOQOL-BREF)
8. Confidence in Coping Skills Scales
9. Revised Adult Attachment Style questionnaire (RAAS)