Trauma, Depression, and Weight Gain: Examining a Population of Veterans Completing Residential Substance Use Program

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Abstract

Weight gain is a common occurrence among individuals receiving treatment for substance use disorder (SUD). Given the limited studies evaluating risk factors for weight gain in residential SUD program, this study investigated the nature of weight gain in a population of veterans. Our data suggests that most experienced significant weight gain, especially those with probable PTSD diagnosis and moderate to severe depressive symptoms.

Introduction

- Trauma history and PTSD is prevalent among individuals with substance use disorders (SUD) and associated with elevated weight.
- Eating disorders are associated with mood dysregulation and difficulties with emotion regulation.
- There are limited studies evaluating risk factors for weight gain among veterans in a residential SUD program.
- Current study investigated the nature of weight gain for veterans who participated in a residential SUD treatment and whether rates of weight gain were higher for veterans who endorsed trauma history and depressive symptoms compared to those without using self-report measures of mood including the Primary Care PTSD Screen (PC-PTSD), Patient Health Questionnaire-9 (PHQ-9), and Brief Addiction Monitor – Revised (BAM-R).

Methods

- The local IRB and the CVAMC Research and Development office approved a waiver of consent and approved the use of data for archival analysis.
- Veterans (n = 74) were administered self-report measures at admission to and discharge from a residential SUD program.
- This study utilized archival data and only participants with pre and post weight were included.
- The final sample consisted of 71 males (95.9%) with a mean age of 47.55 (SD = 12.11). Most of the participants were Caucasian (83.8%) and had greater than high school education (62.2%). The average length of stay was 21.58 days (SD = 1.66).

Table 1

Pre and Post-Admission Comparison

	Pre-Admission $\bar{x}$ (sd)	Post-Admission $\bar{x}$ (sd)
BAM-R: Use	20.16 (19.35)	1.70 (3.52)
BAM-R: Risk	102.70 (34.40)	50.62 (24.89)
BAM-R: Protective	63.41 (24.27)	85.64 (21.00)
PHQ-9	13.35 (6.19)	5.74 (50.17)
PC-PTSD	2.44 (1.65)	-
Weight (lbs)	185.67 (31.92)	195.08 (31.19)

Results

- Significant reduction in BAM-R Use, substance related risk factors (BAM-R Risk), and depressive symptoms (PHQ-9; average reduction of 7.69, SD = 5.98) for all veterans.
- Increase in substance related protective factors (BAM-R Protective) along with an average weight gain of 9.40 lbs (SD = 8.59).

- Significant difference in rates of weight gain, t (72) = -2.17, p = 0.034 for Veterans with comorbid trauma and elevated depressive symptoms (M = 13.13, SD = 9.10) compared to Veteran without comorbid symptoms (M = 8.21, SD = 8.14).
- Significant differences in BMI with higher increase in the comorbid group.
- Veterans without the comorbid condition reported greater increase in substance related protective factors (M = 26.16, SD = 21.95) compared to those with comorbid conditions (M = 10.00, SD = 31.70), t (72) = 2.42, p = 0.018.

Conclusions

- Our data suggest that most Veterans completing the residential SUD treatment program experience a significant increase in weight gain, especially those with probable PTSD diagnosis and comorbid moderate to severe depressive symptoms.
- However, most veterans completing the program reported significant reduction in depressive symptoms along with use and substance related risk factors along with an increase in substance related protective factors.
- Significant and rapid weight gain can cause health related complications.

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