



# Sensory Modulation for Inpatient Psychiatry at the Seattle Veterans Affairs Hospital

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## INTRODUCTION

Veterans served on the inpatient psychiatry unit at the VA Puget Sound Health Care System - Seattle Division (VAPSHCS – Seattle) often have difficulty regulating their reactions to sensory input. Developing skills in sensory modulation can provide Veterans with coping strategies for improved participation and function in daily life. The purpose of this project was to expand the sensory modulation program on this unit.

## SENSORY MODULATION

The external senses give individuals information about the world around them; these include vision, touch, hearing, smell, and taste. The internal senses provide people with information about their own bodies; these include proprioception, vestibular, and deep pressure touch.<sup>1</sup>

Sensory experiences activate the sympathetic and parasympathetic nervous systems, contributing to one's arousal level and emotional state. It is essential to be able to fluctuate between these systems depending on situational and environmental needs in order to respond in a functional and adaptive way.

Sensory modulation is the ability to take in information from the external and internal senses, interpret it, and make a meaningful response. Through therapeutic sensory approaches, individuals can learn to use sensory experiences to change their emotional states and, therefore, their behavior.

## MENTAL HEALTH AND VETERANS

Individuals with mental health diagnoses often have difficulty regulating their nervous systems. Using sensory modulation techniques can positively influence their arousal levels, emotional states, and behaviors. Furthermore, the rate of trauma among the mental health population is as high as 90%.<sup>2</sup> Trauma is associated with sensory processing differences, contributing to the need for sensory-based interventions for this population.

The percentage of mental health diagnoses among returning troops may be as high as 26%.<sup>3</sup> Veterans have a unique set of characteristics that make them more vulnerable to sensory dysregulation, including:

- PTSD as the most common diagnosis<sup>3</sup>
- Atypical sensory experiences and sensory triggers<sup>4</sup>
- Value of self sacrifice that shifts focus from one's own needs<sup>5, 6</sup>

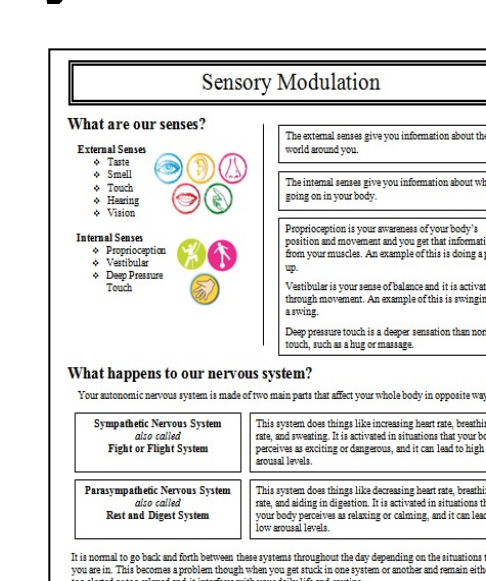
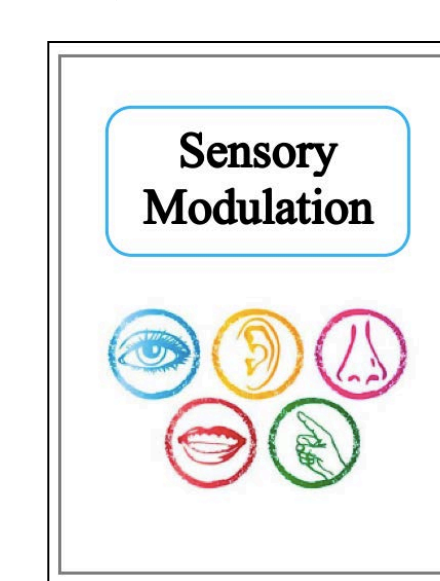
## METHODS

- Literature review
- Interviews with the community mentor
- Observation of occupational therapy groups at the VAPSHCS – Seattle
- Survey of staff at the VAPSHCS – Seattle
- Consultations with regional occupational therapists in mental health settings
- Consultations with national experts in sensory modulation

Needs Identified	Resulting Project Components
<b>Expand Sensory Modulation Program</b> <ul style="list-style-type: none"> <li>- Provide supplemental coping strategies</li> <li>- Develop patient buy-in</li> <li>- Increase knowledge among patients</li> <li>- Increase number of sensory materials</li> </ul>	<ul style="list-style-type: none"> <li>- Sensory group protocol compilation</li> <li>- Sensory modulation information handout</li> <li>- Teaching script for patients with lower cognitive levels</li> <li>- Directions for creating materials in groups</li> <li>- Additional sensory materials</li> </ul>
<b>Generalize Skills to Daily Routines</b> <ul style="list-style-type: none"> <li>- Increase access to sensory materials</li> <li>- Ensure safety of interventions</li> <li>- Increase efficiency for staff support</li> <li>- Facilitate use of interventions after discharge</li> </ul>	<ul style="list-style-type: none"> <li>- Sensory cart and check-out system</li> <li>- Personal coping skills reference card</li> <li>- Reference sheet of sensory techniques for discharge safety planning</li> </ul>
<b>Staff Education</b> <ul style="list-style-type: none"> <li>- Develop staff buy-in</li> <li>- Increase knowledge among staff</li> </ul>	<ul style="list-style-type: none"> <li>- Staff in-service</li> <li>- Training video</li> </ul>

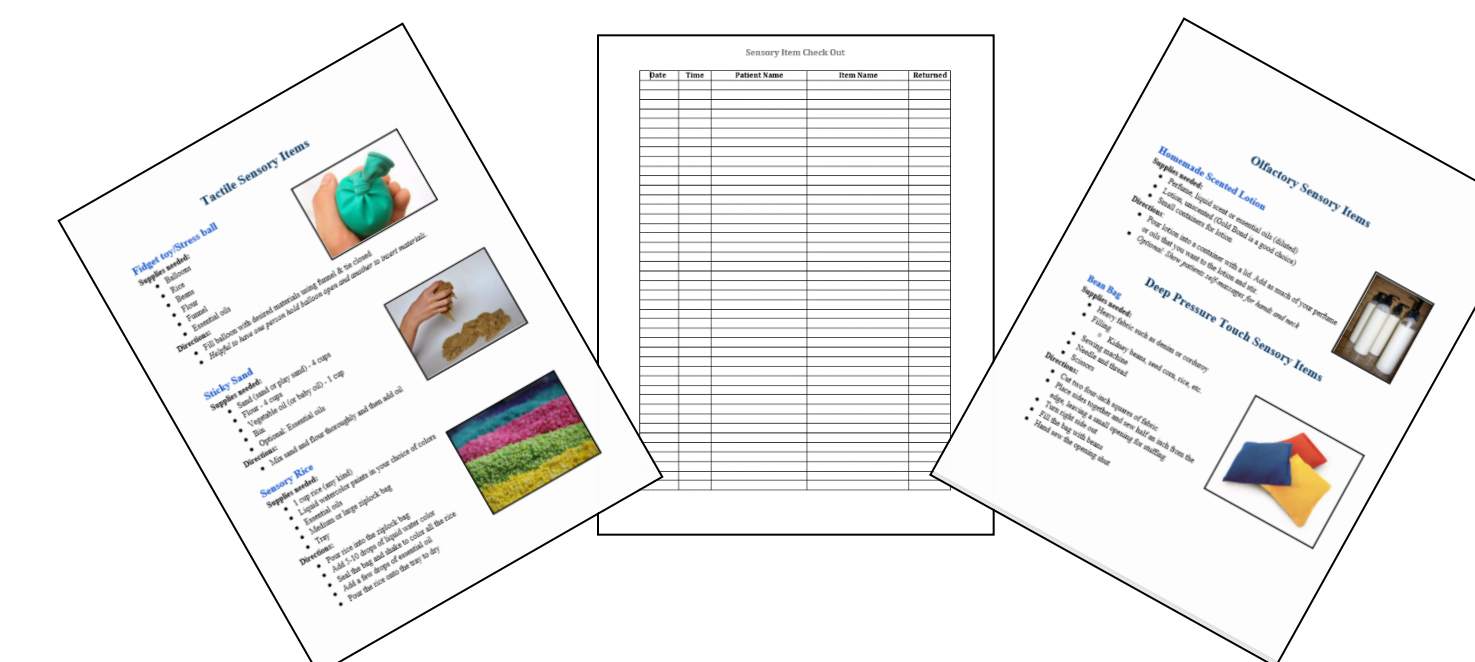
## EXPANDING SENSORY MODULATION PROGRAM

The sensory modulation program was expanded through development of a group protocol compilation, information handouts, and new sensory materials.



## GENERALIZING SKILLS TO DAILY ROUTINES

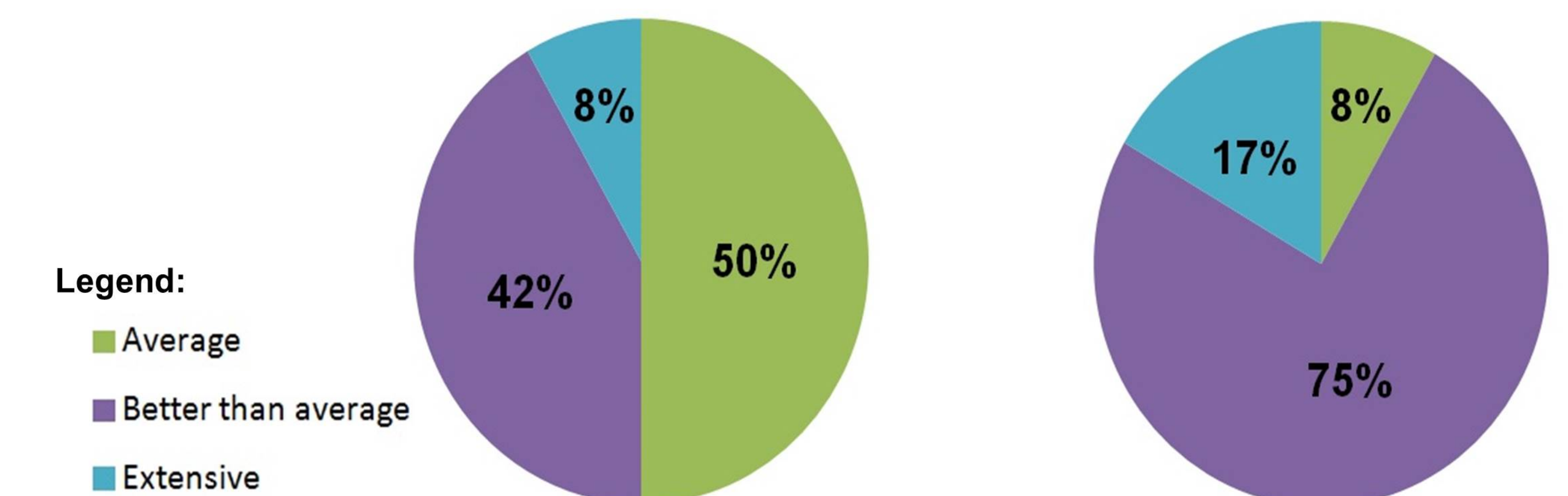
Patients were supported in generalizing skills through the development of a unit check-out system and resources for discharge planning.



## STAFF EDUCATION

- Presented in-services for 15 attendees from social work, occupational therapy, nursing, psychology, and medicine.
  - Discussed neurological and physiological theories, explored evidence and literature, and incorporated experiential learning
- Created sensory modulation education training video

Staff-Reported Levels of Knowledge Before vs. After the Presentation



## DISCUSSION

- Sensory modulation programs enhance participation in valued occupations for Veterans with mental health diagnoses.
- Promoting staff education and buy-in is essential for program sustainability.
- Providing patients with simplified information about sensory modulation helps them better understand their sensory systems.
- Opportunities for experiential learning allow patients to develop awareness of their sensory needs and to generalize skills for better coping in daily life.

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