



Stella

# 2023 Impact Report

Patient Reported Outcome (PRO)

Stella



Those who suffer from post-traumatic stress, anxiety and depression deserve the best care that modern neuroscience and psychological expertise can deliver.

Stella's mission goes far beyond building a network of trusted clinics and board-certified providers. We provide personalized, trauma-informed care that combines cutting-edge biological interventions with seamless psychological support.

Through our partnerships in care, we have treated in excess of 8,500 patients across the full continuum of care, from inpatient to outpatient settings. In this impact report, we present our treatment outcomes, based on the direct data capture from our patients.

We're dedicated to deepening our partnership with you and other medical leaders around the world. In 2023, Stella conducted clinical trials with top-tier institutions, including NYU (fMRI study), UCLA (GrimAge study), the University of Queensland (sleep study), and Polaris Genomics

(DNA biomarker study). We will continue to collaborate to advance the state of science and bring new hope to those who need it.

Outcomes like these propel us forward into a world where interventional psychiatry, combining biological and psychological modalities, will be the new standard of care. While some of Stella's treatments are currently covered by insurance, we are determined to see each of our research-backed treatments be covered, so that all who need them can benefit.

This is the new model of care for treatment-resistant depression, anxiety, and post-traumatic stress. We're proud to partner with you and to share the outcomes we've achieved, together.

**As we look ahead to 2024 and beyond, let's continue to innovate as if lives depend on it – because they do.**



Philippe Sanchez  
CEO of Stella

# Interventional Psychiatry: Stella's Medical & Mental Health Team



Dr. Eugene Lipov, MD  
Co-Founder & Chief Medical Officer



Dr. Shauna Springer, PhD  
Chief Psychology Officer



Dr. Brian Boyle, MD  
Chief Psychiatry Officer



Dr. Karen DeCocker, DNP, PMHNP, CNM  
Vice President of Clinical Services



Dr. Chris Romig, MD  
Medical Director, Innovation



Dr. Bruce Nadro, DO  
Medical Director, Ketamine



Dr. John How, MD  
Medical Director, San Diego



6 Centers of Excellence

20+ Provider Locations Worldwide

- Medical Providers
- ⊗ Center of Excellence



Stella Center Chicago



Stella Center New York



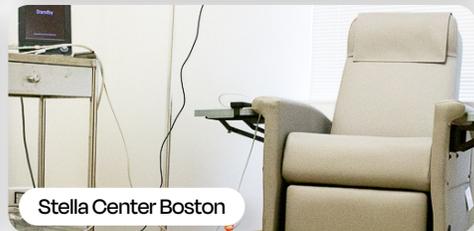
Stella Center Washington DC



Stella Center Irvine

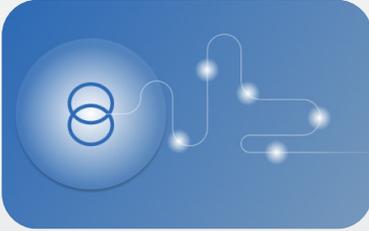


Stella Center San Diego



Stella Center Boston

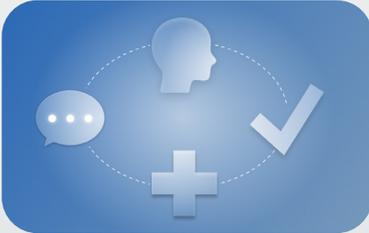
# Comprehensive Care For Interventional Psychiatry & Integration Therapy



## Confidential Assessment

**Meet with a Stella licensed practitioner (PMH-NP).**

Stella's team of Mental Health Nurse Practitioners completes a comprehensive medical biopsychosocial assessment and customizes a treatment plan based on each individual's needs.



## Multi-Modality Care

**Coordinated Care**

Each plan varies based on the needs of the individual, ranging from a single-service treatment to multi-modality care plans that unlock the synergy between biological and psychological interventions.



## Treatment Journey

**Treatments are delivered in Stella's Centers of Excellence in key markets and through a nationwide telehealth platform.**

Our interventional treatments are also delivered through a curated, geographically diverse network of Stella-trained, board-certified providers.



## Ongoing Care

**Stay committed to positive outcomes.**

Patients are assessed pre and post treatment and their progress is tracked for a year post treatment. Stella's teletherapy program is purpose-built by its Chief Psychology Officer to complement interventional treatments and is delivered through its telehealth platform.



# Interventional Psychiatry Modalities

Stella's protocols target the biological cause of symptoms instead of just managing them. Following each biological treatment, patients are supported by brief, targeted integration therapy during a window of accelerated healing.



## The Dual Sympathetic Reset (DSR)

The Dual Sympathetic Reset (DSR), an advanced version of the Stellate Ganglion Block (SGB), is supported by level 1B evidence as a treatment for symptoms of post traumatic stress and anxiety.<sup>1 2</sup> A DSR procedure takes 15-20 minutes and involves injecting a non-psychoactive anesthetic medication into two clusters of nerves above the collarbone. A successful procedure can dramatically reduce anxiety, and restore calm to the body. While patients may decide to complete a single DSR (S-DSR) on one side of the neck, our internal data suggests that bilateral DSR enhances efficacy for most patients.



## Ketamine Infusion Therapy

Ketamine infusion therapy is a fast and effective modality that has shown promise for treating depression, PTSD and anxiety symptoms. By increasing the levels of glutamate in the brain, ketamine can help increase neural communication to improve mood and reduce feelings of depression.<sup>3</sup> In addition, research has shown that ketamine lowers the biological fear response, allowing patients to approach things they might otherwise avoid.<sup>4</sup> Ketamine can create an altered state of consciousness that can help patients see long-standing challenges in a new light. When paired with purpose-built Stella integration sessions, dramatic positive outcomes become possible within a 3-4 week period.



## Multi-Modality Approach

The multi-modality approach involves a combination of biological and psychological treatments. Our internal data (pending publication) suggests that patients with higher symptom severity or co-morbid conditions may respond more effectively to combined interventions in which both mood and an overactive sympathetic system are targeted. We are currently collecting data that we expect will demonstrate the incredibly powerful synergy between DSR, Ketamine and talk therapy integration. As we expand our modalities to include transcranial magnetic stimulation (TMS), Spravato, and other biological treatments, we will continue to evolve our protocols under the leadership of our medical team and tier 1 research collaborators.



## Integration Therapy

Stella's integration therapy service has been specifically designed by its Chief Psychology Officer to support Stella's biological interventions. With the support of specific insights around topics like grief and loss, overcoming childhood abandonment, confronting feelings of shame, and many more, Stella patients can radically transform aspects of their identity and approach to navigating relationships. Stella now offers telehealth integration to capture, deepen and consolidate transformative shifts experienced during Ketamine infusion sessions. Similarly, Stella now offers targeted integration support following DSR injections that are based on the most common presenting issues of the thousands of patients Stella has treated.

# Patient Demographic

Stella has treated over 8,500 patients since 2020.

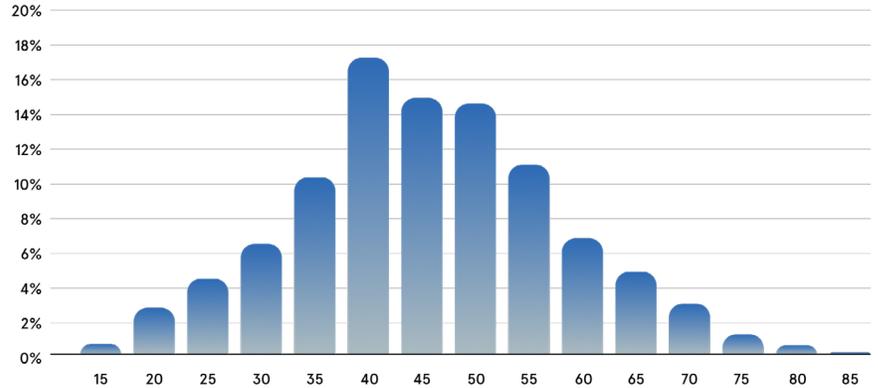
Last year alone, over 3,500 people came to Stella in hopes of finding relief from symptoms that impact their lives every day.

The following report leverages pre- and post-core measures of 1,977 of those patients.

This is the largest data report ever released of outcomes following DSR SGB and the combination of DSR and Ketamine, and one of the largest reports on outcomes after Ketamine infusion therapy.



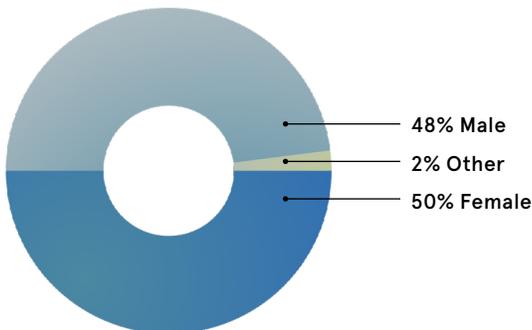
### % Age Distribution



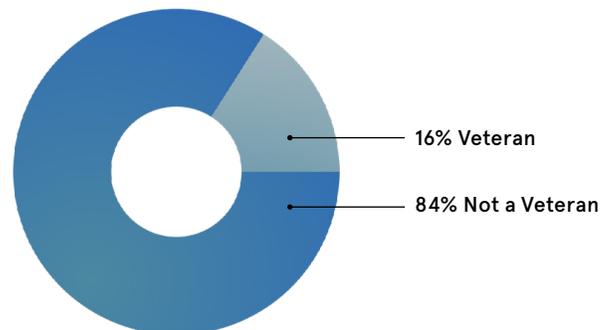
### Average Age of Stella Patient

43.7

### Gender Distribution



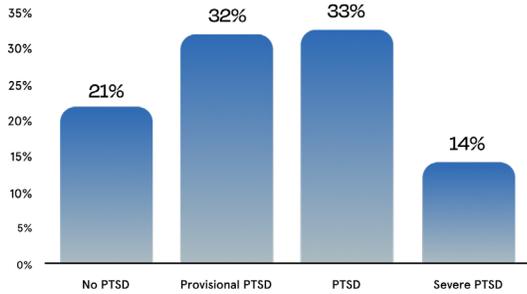
### % of Veterans



# Symptom Prevalence

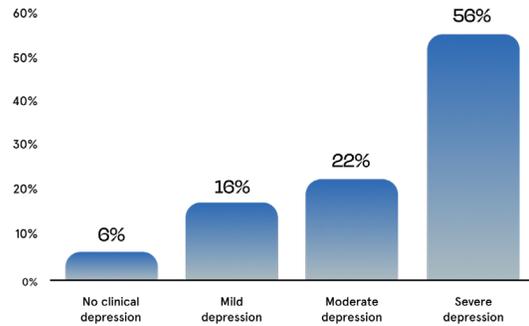
## PTSD

Among those who completed the PTSD Checklist (PCL-5), 32% of patients reported mild trauma symptoms, 33% reported moderate trauma symptoms, and 14% reported severe trauma symptoms.



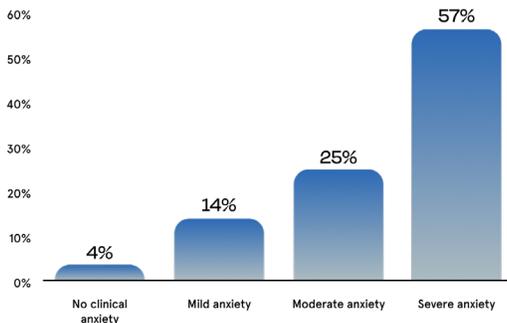
## Depression

Of those who completed the Patient Health Questionnaire (PHQ-9), 22% of patients reported moderate symptoms of depression and 56% of patients reported severe symptoms of depression.



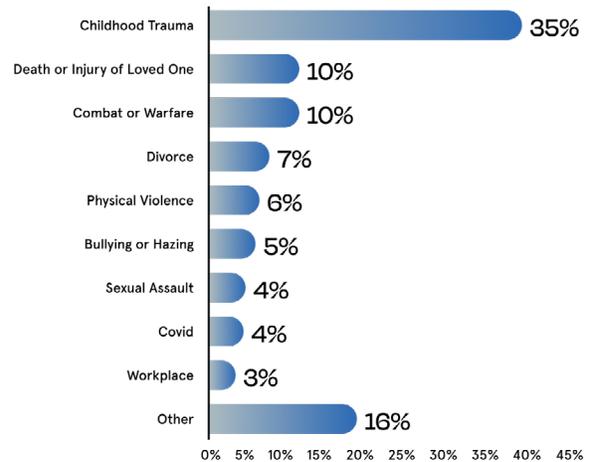
## Anxiety

Of patients who completed the Generalized Anxiety Disorder 7-item (GAD-7), 25% reported moderate symptoms of anxiety and 57% of patients reported severe symptoms of anxiety.



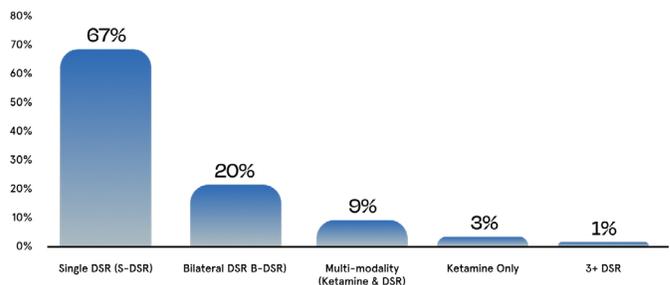
## Trauma

Patients reported many trauma types including childhood trauma (35%), death or injury (10%), and combat or warfare (10%).



# Treatment Modality Distribution

Single DSR (S-DSR) was the primary intervention delivered for Stella patients treated in 2023 (n=1252). One fifth of the sample received two total DSR treatments, one on the right and one on the left (n=256). Nine percent had a combination of DSR and Ketamine (n=107). Three percent (n=31) had Ketamine infusions only, and one percent had more than 3 DSR procedures (n=14).

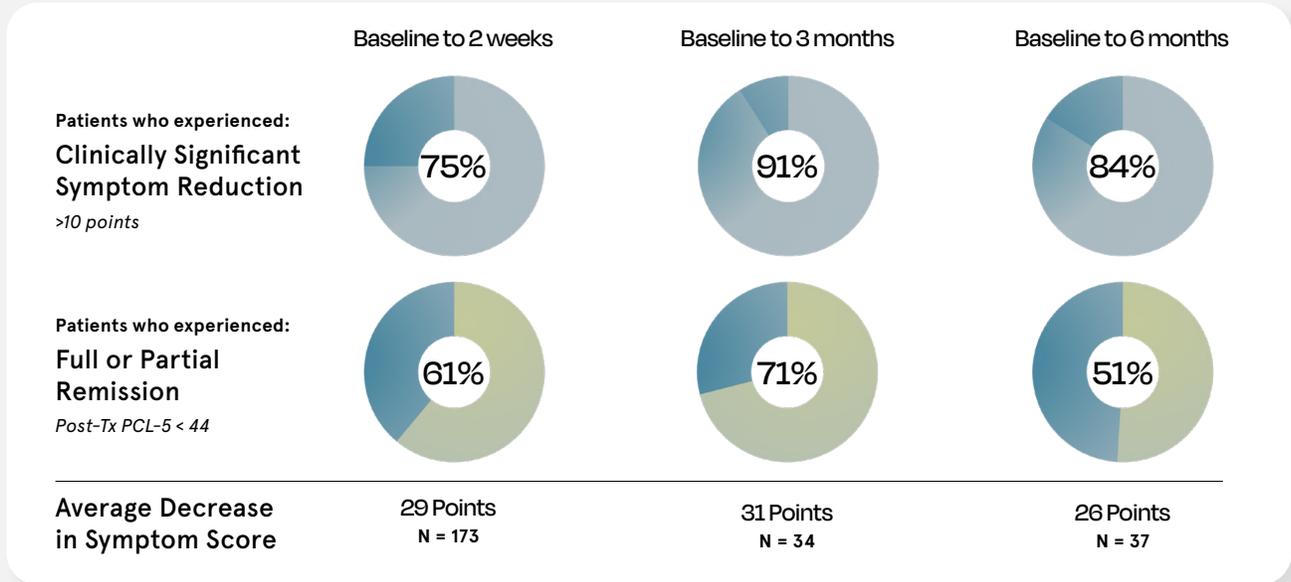


Patient Reported Outcome (PRO)

# Severe PTSD Symptoms

Post-Traumatic Checklist-5 (PCL-5)  
Pre-Tx PCL-5 > 65

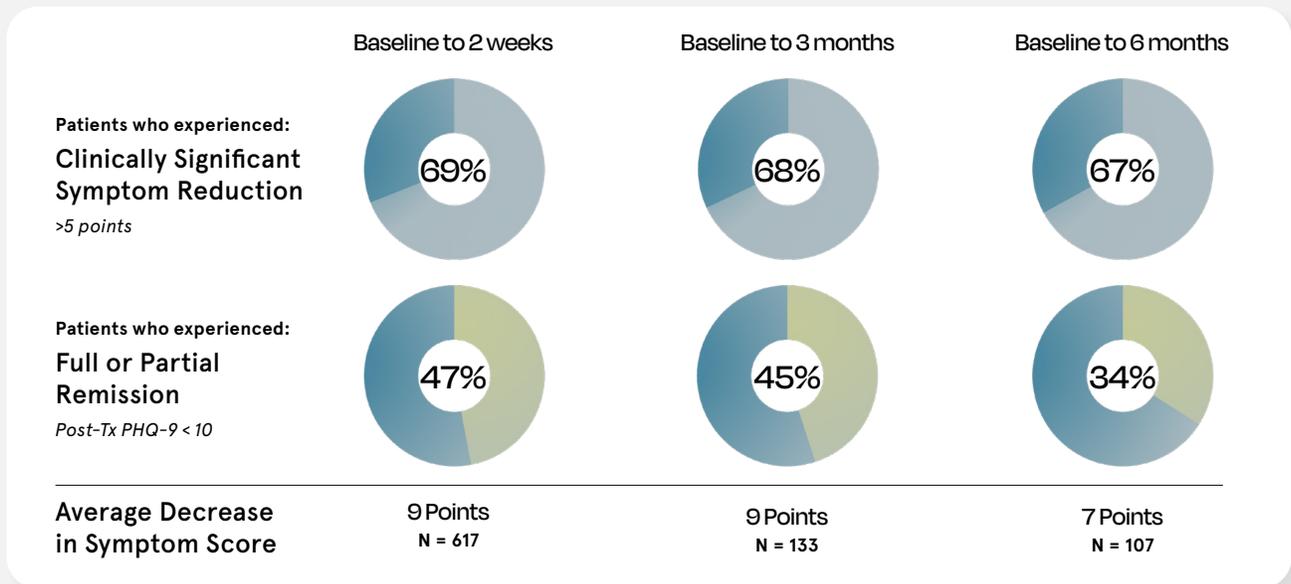
Of patients who endorsed severe trauma symptoms (PCL-5>65), 75% had a clinically significant reduction and 61% reported full or partial remission from PTSD symptoms after completing treatment. The average decrease in their PCL-5 symptom score was 29 points 2 weeks post-treatment. Patients continued to report sustained treatment gains on the PCL-5 when assessed at 3 to 6 months after treatment.



# Severe Depression

Patient Health Questionnaire-9 (PHQ-9)  
Pre-Tx PHQ-9 > 15

Of patients who endorsed severe depression (PHQ-9 >15), 69% had a clinically significant reduction in depression symptoms, and 47% reported full or partial remission from depression symptoms. The average decrease in Stella patients' PHQ-9 symptom score was 9 points 2 weeks post-treatment. Patients continued to report sustained treatment gains on the PHQ-9 when assessed at 3 to 6 months after treatment.

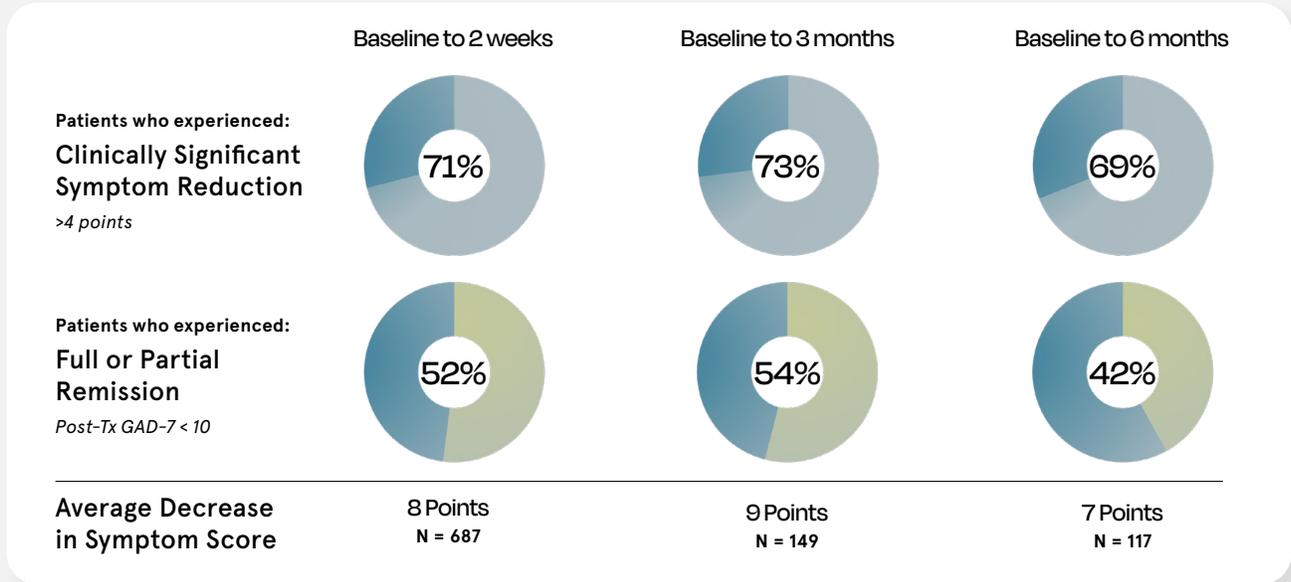


Patient Reported Outcome (PRO)

# Severe Anxiety

Generalized Anxiety Disorder-7 (GAD-7)  
Pre-Tx GAD-7 > 15

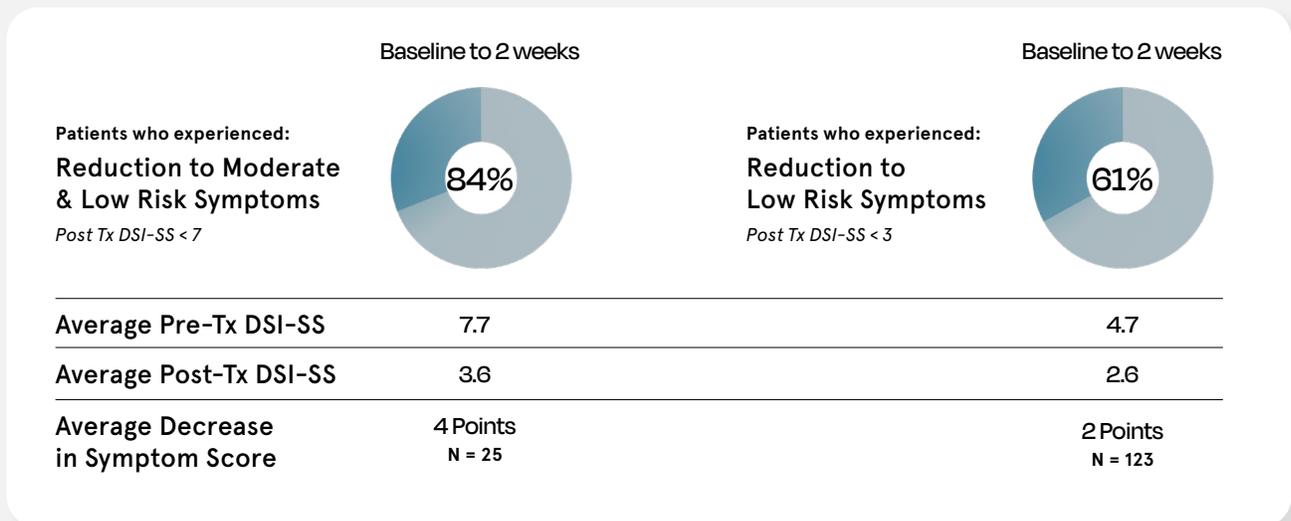
Of patients who endorsed severe anxiety (GAD-7>15), 71% had a clinically significant reduction in anxiety symptoms and 52% reported full or partial remission from anxiety symptoms. The average decrease in Stella patients' GAD-7 symptom score was 8 points 2 weeks post-treatment. Patients continued to report sustained treatment gains on the GAD-7 when assessed at 3 to 6 months after treatment.



# Suicidality Risk

Depressive Symptom Index  
Suicidality Sub-scale (DSI-SS)  
Pre-Tx DSI-SS >3

Of patients who endorsed moderate suicidality (DSI-SS>3&<7), 61% of patients reported an improvement in suicidality which resulted in low suicidality symptoms (DSI-SS<3). The average decrease in Stella patients' DSI-SS symptom score was 2 points. Of patients who reported severe suicidality (DSI-SS>7), 84% had an improvement in suicidality which resulted in moderate to low suicidality symptoms (DSI-SS<7). The average decrease in DSI-SS symptom score was 4 points.

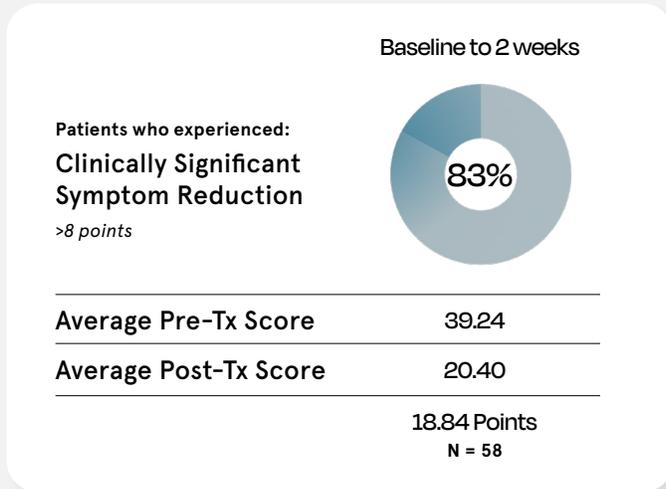


Patient Reported Outcome (PRO)

# Neurobehavioral Symptoms

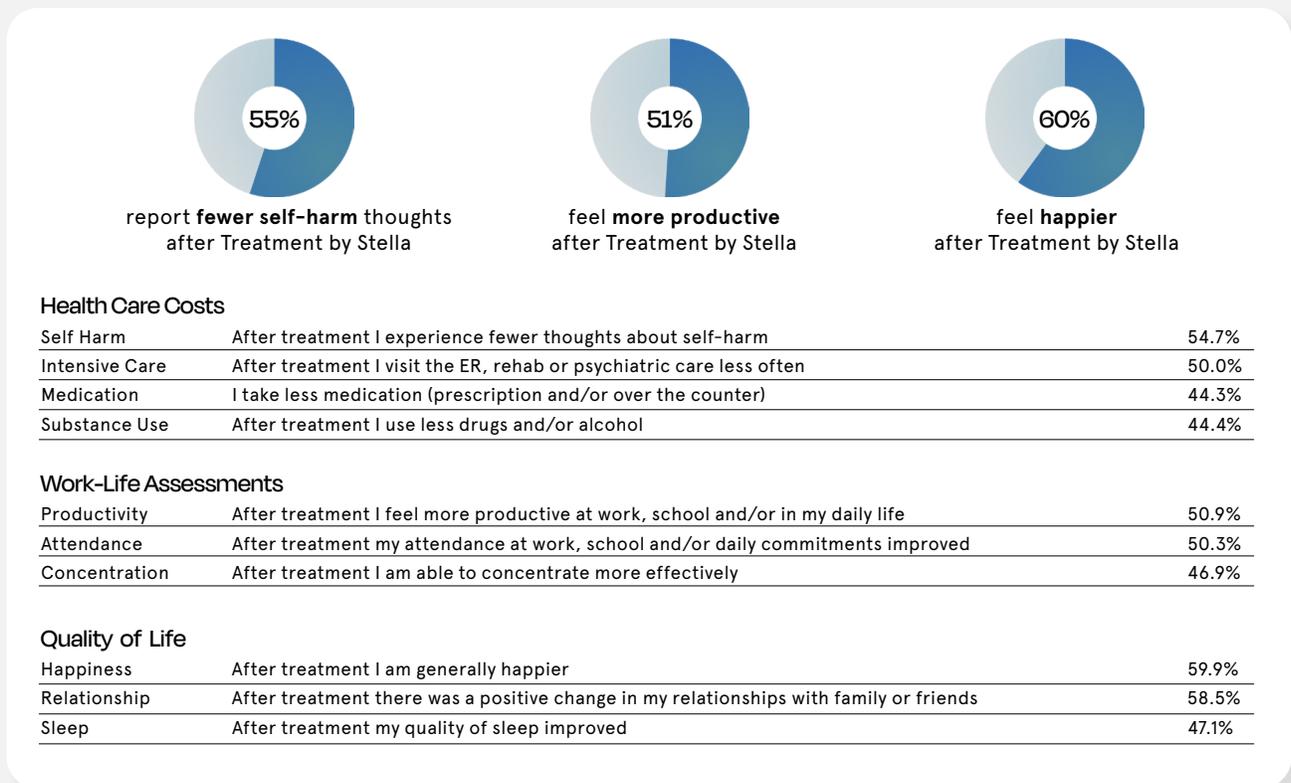
Neurobehavioral Symptom Inventory (NSI)

The NSI is only assessed if patients endorse symptoms associated with a history of concussion or brain injury. Therefore, the sub-sample that qualifies for analysis is a total of 58 patients. Based on the existing literature, Stella uses a decrease of 8 points in a total sum score as the standard of a clinically significant positive outcome.<sup>5-6</sup> The average decrease reported by Stella patients was 18.84. While Stella’s sample size is small, to put this into context, the average score decrease in a sample of 314 patients who received a 30 day, 8-hour-a-day inpatient care at the National Intrepid Center for Excellence (NICoE) was 12.08.<sup>7-8</sup>



# Quality of Life Survey

In addition to tracking our outcomes with standard measures of psychological trauma, anxiety, and depression, we asked our patients treated between Dec 16’ – Aug 22’ about the functional changes they’ve experienced in the months and years after receiving Stella treatment. A total of 227 patients responded to our survey an average of 17 months after completing treatment. Therefore, these data represent relatively long-term post-treatment quality of life changes.



Data shown on the rates and percentages of individuals with depression, anxiety and PTSD are based on self-reported information from patients collected through clinical surveys and assessments such as the PHQ-9 and GAD-7 survey tools. All patient reported outcome data (PRO) below are reported among patients treated in 2023 who exhibited mild or higher level of severity symptoms.

## Demographics

# of patients treated	1977
Average Age	44
Veteran	16%
Gender	
Male	48%
Female	50%
Other	2%

## Trauma Types Reported

Childhood trauma	35%	Bullying or hazing	5%
Death or injury of loved one	10%	Sexual assault	4%
Combat or warfare	10%	Covid	4%
Divorce	7%	Workplace	3%
Physical violence	6%	Other	16%

## Treatments Executed

Single DSR (S-DSR)	67%
Bilateral DSR (B-DSR)	20%
Multi-Modality (Ketamine & DSR)	9%
Ketamine Only	3%
3+ DSR	1%

## PTSD Symptoms

Post-Traumatic Checklist-5 (PCL-5)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
MILD SYMPTOMS	>=33	<49	385	41.6	25.6	16.1	1.3	39%	64%	68%	0%
MODERATE SYMPTOMS	>=49	<65	397	56.6	34.3	22.3	1.6	39%	69%	49%	23%
SEVERE SYMPTOMS	>=65	<80	173	70.0	41.4	28.6	2.7	41%	75%	39%	21%
ALL PATIENTS	>=33	<80	955	53.0	32.1	20.9	1.0	39%	68%	55%	13%
<b>BASE LINE TO 3 MONTHS</b>											
MILD SYMPTOMS	>=33	<49	98	42.3	27.9	14.4	2.7	34%	56%	61%	0%
MODERATE SYMPTOMS	>=49	<65	89	56.7	32.3	24.5	3.6	43%	71%	55%	16%
SEVERE SYMPTOMS	>=65	<80	34	69.1	37.9	31.2	5.6	45%	91%	38%	32%
ALL PATIENTS	>=33	<80	221	52.2	31.2	21.0	2.2	40%	67%	55%	11%
<b>BASE LINE TO 6 MONTHS</b>											
MILD SYMPTOMS	>=33	<49	65	42.8	25.8	16.9	3.2	40%	65%	71%	0%
MODERATE SYMPTOMS	>=49	<65	69	56.7	36.0	20.7	3.9	36%	70%	42%	30%
SEVERE SYMPTOMS	>=65	<80	37	69.7	43.3	26.5	5.3	38%	84%	32%	19%
ALL PATIENTS	>=33	<80	171	54.2	33.7	20.5	2.3	38%	71%	51%	16%

## Depression Symptoms

Patient Health Questionnaire - 9 (PHQ-9)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
MILD SYMPTOMS	>=5	<10	184	7.5	5.5	1.9	0.5	26%	27%	41%	0%
MODERATE SYMPTOMS	>=10	<15	261	12.1	7.2	4.8	0.5	40%	59%	36%	34%
SEVERE SYMPTOMS	>=15	<20	617	19.7	11.0	8.7	0.5	44%	69%	22%	25%
ALL PATIENTS	>=5	<20	1062	15.7	9.1	6.6	0.3	42%	59%	29%	23%
<b>BASE LINE TO 3 MONTHS</b>											
MILD SYMPTOMS	>=5	<10	26	7.8	8.5	-0.7	1.8	-9%	23%	23%	0%
MODERATE SYMPTOMS	>=10	<15	50	11.9	7.5	4.4	1.3	37%	60%	40%	26%
SEVERE SYMPTOMS	>=15	<20	133	19.5	10.8	8.8	1.0	45%	68%	23%	22%
ALL PATIENTS	>=5	<20	209	16.2	9.7	6.5	0.8	40%	61%	27%	20%
<b>BASE LINE TO 6 MONTHS</b>											
MILD SYMPTOMS	>=5	<10	23	7.7	5.2	2.5	1.4	32%	39%	52%	0%
MODERATE SYMPTOMS	>=10	<15	31	11.9	9.4	2.5	1.7	21%	39%	19%	32%
SEVERE SYMPTOMS	>=15	<20	107	19.6	12.3	7.3	1.1	37%	67%	15%	19%
ALL PATIENTS	>=5	<20	161	16.4	10.7	5.7	0.9	35%	58%	21%	19%

## Anxiety Symptoms

Generalized Anxiety Disorder-7 (GAD-7)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
MILD SYMPTOMS	>=5	<10	163	7.3	4.7	2.6	0.5	36%	48%	55%	0%
MODERATE SYMPTOMS	>=10	<15	317	12.3	6.5	5.8	0.5	48%	69%	40%	31%
SEVERE SYMPTOMS	>=15	<20	687	18.3	10.0	8.3	0.4	45%	71%	23%	30%
ALL PATIENTS	>=5	<20	1167	15.1	8.3	6.8	0.3	45%	67%	32%	26%
<b>BASE LINE TO 3 MONTHS</b>											
MILD SYMPTOMS	>=5	<10	27	7.3	6.3	1.1	1.5	15%	26%	44%	0%
MODERATE SYMPTOMS	>=10	<15	56	12.5	6.4	6.1	1.1	49%	75%	36%	43%
SEVERE SYMPTOMS	>=15	<20	149	18.3	9.6	8.7	0.8	47%	73%	24%	30%
ALL PATIENTS	>=5	<20	232	15.6	8.4	7.2	0.7	46%	68%	29%	29%
<b>BASE LINE TO 6 MONTHS</b>											
MILD SYMPTOMS	>=5	<10	18	7.3	6.7	0.6	2.3	8%	28%	28%	0%
MODERATE SYMPTOMS	>=10	<15	46	12.6	8.3	4.3	0.8	34%	57%	22%	41%
SEVERE SYMPTOMS	>=15	<20	117	18.2	10.7	7.4	1.1	41%	69%	19%	23%
ALL PATIENTS	>=5	<20	181	15.7	9.7	6.0	0.9	38%	62%	20%	25%

## Suicidality Risk

Depressive Symptom Index - Suicidality Subscale (DSI-SS)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
MILD SYMPTOMS	>=0	<4	217	1.9	1.5	0.4	0.1	20%	N/A	N/A	N/A
MODERATE SYMPTOMS	>=4	<7	123	4.7	2.6	2.1	0.4	45%	61%	N/A	N/A
SEVERE SYMPTOMS	>=7	<=10	25	7.7	3.6	4.2	0.9	54%	84%	N/A	N/A
ALL PATIENTS	>=0	<=10	365	3.2	2.0	1.2	0.1	38%	N/A	N/A	N/A

## Neurobehavioral Symptoms

Neurobehavioral Symptoms Inventory (NSI)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
ALL PATIENTS	>=0	<89	58	39.2	20.4	18.8	3.8	48%	N/A	N/A	N/A



# Confidential Partnership Addendum

2023 Patient Reported Outcome (PRO)

 Stella



The following patient-reported data shows outcomes of patients treated with your organization.

Data shown on the rates and percentages of individuals with depression, anxiety and PTSD are based on self-reported information from patients collected through clinical surveys and assessments such as the PHQ-9 and GAD-7 survey tools. All patient reported outcome data (PRO) below are reported among patients treated in 2023 who exhibited mild or higher level of severity symptoms.

Demographics

# of patients treated	6
Average Age	39
Veteran	100%
Gender	
Male	80%
Female	20%
Other	0%

Trauma Types Reported

Childhood trauma	27%	Bullying or hazing	0%
Death or injury of loved one	13%	Sexual assault	0%
Combat or warfare	13%	Covid	0%
Divorce	7%	Workplace	20%
Physical violence	0%	Other	20%

Treatments Executed

Single DSR (S-DSR)	100%
Bilateral DSR (B-DSR)	0%
Multi-Modality (Ketamine & DSR)	0%
Ketamine Only	0%
3+ DSR	0%

PTSD Symptoms

Post-Traumatic Checklist-5 (PCL-5)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
MILD SYMPTOMS	>=33	<49	2	42.0	30.5	11.5	12.3	27%	50%	50%	0%
MODERATE SYMPTOMS	>=49	<65	2	54.5	38.0	16.5	27.1	30%	50%	50%	0%
SEVERE SYMPTOMS	>=65	<80	1	72.0	47.0	25.0	N/A	35%	100%	0%	100%
ALL PATIENTS	>=33	<80	5	53.0	36.8	16.2	10.3	31%	60%	40%	20%
<b>BASE LINE TO 3 MONTHS</b>											
MILD SYMPTOMS	>=33	<49	1	45.0	13.0	32.0	N/A	71%	100%	100%	0%
MODERATE SYMPTOMS	>=49	<65	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SEVERE SYMPTOMS	>=65	<80	1	72.0	47.0	25.0	N/A	35%	100%	0%	100%
ALL PATIENTS	>=33	<80	2	58.5	30.0	28.5	5.8	49%	100%	50%	50%
<b>BASE LINE TO 6 MONTHS</b>											
MILD SYMPTOMS	>=33	<49	1	45.0	8.0	37.0	N/A	82%	100%	100%	0%
MODERATE SYMPTOMS	>=49	<65	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SEVERE SYMPTOMS	>=65	<80	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ALL PATIENTS	>=33	<80	1	45.0	8.0	37.0	N/A	82%	100%	100%	0%

Depression Symptoms

Patient Health Questionnaire - 9 (PHQ-9)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
MILD SYMPTOMS	>=5	<10	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MODERATE SYMPTOMS	>=10	<15	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SEVERE SYMPTOMS	>=15	<20	5	19.4	14.2	5.2	4.8	27%	60%	0%	40%
ALL PATIENTS	>=5	<20	5	19.4	14.2	5.2	4.8	27%	60%	0%	40%
<b>BASE LINE TO 3 MONTHS</b>											
MILD SYMPTOMS	>=5	<10	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MODERATE SYMPTOMS	>=10	<15	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SEVERE SYMPTOMS	>=15	<20	2	21.5	10.0	11.5	7.4	53%	100%	50%	0%
ALL PATIENTS	>=5	<20	2	21.5	10.0	11.5	7.4	53%	100%	50%	0%
<b>BASE LINE TO 6 MONTHS</b>											
MILD SYMPTOMS	>=5	<10	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MODERATE SYMPTOMS	>=10	<15	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SEVERE SYMPTOMS	>=15	<20	1	19.0	2.0	17.0	N/A	89%	100%	100%	0%
ALL PATIENTS	>=5	<20	1	19.0	2.0	17.0	N/A	89%	100%	100%	0%

Anxiety Symptoms

Generalized Anxiety Disorder-7 (GAD-7)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
MILD SYMPTOMS	>=5	<10	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MODERATE SYMPTOMS	>=10	<15	1	12.0	7.0	5.0	N/A	42%	100%	0%	100%
SEVERE SYMPTOMS	>=15	<20	4	18.0	12.8	5.3	5.0	29%	50%	0%	25%
ALL PATIENTS	>=5	<20	5	16.8	11.6	5.2	3.8	31%	60%	0%	40%
<b>BASE LINE TO 3 MONTHS</b>											
MILD SYMPTOMS	>=5	<10	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MODERATE SYMPTOMS	>=10	<15	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SEVERE SYMPTOMS	>=15	<20	2	18.0	7.5	10.5	5.8	58%	100%	50%	0%
ALL PATIENTS	>=5	<20	2	18.0	7.5	10.5	5.8	58%	100%	50%	0%
<b>BASE LINE TO 6 MONTHS</b>											
MILD SYMPTOMS	>=5	<10	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MODERATE SYMPTOMS	>=10	<15	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SEVERE SYMPTOMS	>=15	<20	1	15.0	1.0	14.0	N/A	93%	100%	100%	0%
ALL PATIENTS	>=5	<20	1	15.0	1.0	14.0	N/A	93%	100%	100%	0%

Suicidality Risk

Depressive Symptom Index - Suicidality Subscale (DSI-SS)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
MILD SYMPTOMS	>=0	<=3	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MODERATE SYMPTOMS	>=4	<=6	1	5.0	6.0	-1.0	N/A	-20%	0%	N/A	N/A
SEVERE SYMPTOMS	>=7	<=10	2	8.5	6.5	2.0	3.3	24%	50%	N/A	N/A
ALL PATIENTS			3	7.3	6.3	1.0	1.9	14%	N/A	N/A	N/A

Neurobehavioral Symptoms

Neurobehavioral Symptoms Inventory (NSI)

	PRE-TX SCORE	N	AVG PRE-TX	AVG POST-TX	AVG DROP	MARGIN OF ERROR	% DROP	% CLINICAL RESPONSE	% FULL REMISSION	% PARTIAL REMISSION	
<b>BASE LINE TO 2 WEEKS</b>											
ALL PATIENTS	>=0	<89	1	60.0	10.0	50.0	N/A	83%	N/A	N/A	N/A

## Methods

Stella uses the PTSD Checklist for DSM-5 (PCL)\* to score the self-reported severity of PTSD symptoms. Scores on the PCL range from 0-80. In analyzing this data, Stella used the following PCL standard cutoffs: 0-32 minimal PTSD symptoms, 33-49 mild PTSD symptoms, 50-65 moderate PTSD symptoms, and 65-80 severe PTSD symptoms. Based on the clinically meaningful threshold set by the National Center for PTSD, Stella defines 'responsiveness' as a post-treatment PCL decrease of at least 10 points. Stella defines 'full remission' as a PCL score of less than 33 and 'partial remission' as a score between 33-50 on the PCL.

The Patient Health Questionnaire (PHQ-9)\* is used to score the self-reported severity of depression symptoms. Stella uses the following PHQ-9 standard cutoffs: 0-4 no depressive symptoms, 5-9 mild depressive symptoms, 10-14 moderate depressive symptoms, 15-19 moderately-severe depressive symptoms, and 20-27 severe depressive symptoms. Stella defines 'responsiveness' as a drop of 5 or more points in PHQ-9 score after treatment intervention. Stella defines 'full remission' as a score below 5 on the PHQ-9 and 'partial remission' as a PHQ-9 score between 5-10 following treatment.

The Generalized Anxiety Disorder 7-item (GAD-7) is used to score the self-reported severity of anxiety symptoms. Stella uses the following GAD-7 standard cutoffs: 0-4 minimal anxiety, 5-9 mild anxiety, 10-14 moderate Anxiety, greater than 15 Severe Anxiety. Stella defines 'responsiveness' as a drop of 4 or more points in GAD-7 score after treatment intervention. Stella defines 'full remission' as a score below 5 on the GAD-7 and 'partial remission' as a score between 5-10 on the GAD-7 after treatment.

The Depression Symptom Index - Suicidality Scale (DSI-SS) is a self-reported measure of the frequency and intensity of suicidality intention and impulses within the past two weeks. With a total of four items ranging from 0-3 per item, the DSI-SS ranges between 0-12 points. Existing research suggests that a score higher than 3 may indicate elevated risk (Joiner et al, 2002).<sup>9</sup> Therefore, Stella interprets scores of less than 3 as indicating low suicidality, scores between 3-7 and indicating moderate suicidality, and scores higher than 7 as indicating severe suicidality.

The Neurobehavioral Symptom Inventory (NSI) is a 22-item measure of post-concussive symptoms. Patients are asked to rate the severity of their symptoms, as experienced within the past 2 weeks, on a scale from 0 (None) to 4 (Very Severe). Total scores range from 0-88, with higher scores indicative of more severe post-concussive symptoms. Stella uses a decrease of 8 points in a total sum score as the standard of a clinically significant positive outcome based on outcomes published in the medical literature. (Belanger, et. al, 2016; Scarlett et al. 2023).<sup>5 6</sup>

All margins of error are calculated at a 90% confidence level.

## Disclaimer

Dual Sympathetic Reset (an advanced version of SGB) and Ketamine are both used as off-label interventions based on research showing positive outcomes for these treatments for symptoms of PTSD, depression and anxiety. Ketamine and the dual sympathetic reset are not FDA-approved for the treatment of depression, anxiety, PTSD or PTSD. Stella MSO, LLC, Lipov Medical, S.C. and their parents, subsidiaries, and affiliates (collectively "Stella") make no representations or warranties that the content contained in this Report satisfies government regulations regarding the disclosure of information on prescription drug products.

The information conveyed in this 2023 Impact Report ("Report") is for general informational purposes only and does not constitute medical advice, treatment, or the practice of medicine. Data shown on the rates and percentages of individuals with depression, anxiety and PTSD are based on self-reported information from patients collected through clinical surveys and assessments such as the PHQ and GAD survey tools.

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