Skyland Trail is a trailblazer in the area of measurement-based care and outcomes research, which is an integral part of our evidence-based treatment model. Our robust outcomes and research program employs evaluative instruments considered to be the gold standards in the mental health field to measure the effectiveness of our treatment programs.

Outcome data from 2008 through 2018 confirm that our unique integrated, evidence-based approach helps our clients return to their communities with reduced symptoms and improved skills to pursue more independent and productive lives.

**ASSESSMENT SCALES**

**IMPROVEMENT IN FUNCTIONING**
- Behavior & Symptom Identification Scale-32 (BASIS-32)
- Medication Attitude Inventory (MAI)
- Making Decisions Scale (MDS)

**REDUCTION IN SYMPTOMS**
- Behavior & Symptom Identification Scale-32 (BASIS-32)
- Beck Hopelessness Scale (BHS)

**DISEASE-SPECIFIC OUTCOMES**
- Schizophrenia & Schizoaffective Disorder: Brief Psychiatric Rating Scale (BPRS-24)
- Major Depression: Montgomery-Asberg Depression Rating Scale (MADRS)
- Anxiety: Hamilton Anxiety Rating Scale (HAM-A)
- Bipolar: Young Mania Rating Scale (YMRS)

88% of all clients experienced a statistically significant improvement in functionality, symptoms, and social relationships

88% of clients with anxiety experienced statistically significant improvement in control of anxiety

92% of clients with very severe symptoms of depression experienced clinically significant reduction

100% of clients who had clinically meaningful episodes of mania showed no symptoms of clinically meaningful mania at discharge

85% of all clients experienced a statistically significant improvement in hope

90% of clients leave treatment with a positive attitude about taking their psychiatric medication
Skyland Trail administers disease-specific outcome measurement tools every two weeks of treatment, based on the confirmed diagnosis at admission. Though the scales differ for each measurement, lower scores always indicate improved symptomatology.

Scores closest to admission and closest to discharge, show that for all four diagnosis-specific measures, clients show a clinically and very highly statistically significant improvement of symptomatology.

### Bipolar Illness

100% of clients who had clinically meaningful episodes of mania showed no symptoms of clinically meaningful mania at discharge.

**Young Mania Rating Scale 2018**

\[ t(48) = 6.45, p = .000 \]

**Improvement**

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Score Closest to Admission</th>
<th>Score Closest to Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>7.33</td>
<td>1.75</td>
</tr>
</tbody>
</table>


### Major Depression

92% of clients with very severe and severe symptoms of depression experienced clinically significant reduction.

**Montgomery-Asberg Depression Rating Scale 2018**

\[ t(145) = 12.93, p = .000 \]

**Improvement**

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Score Closest to Admission</th>
<th>Score Closest to Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>22.6</td>
<td>9.67</td>
</tr>
</tbody>
</table>


### Anxiety Disorders

87% of clients with anxiety experienced statistically significant improvement in control of anxiety.

**Hamilton Scale of Anxiety 2018**

\[ t(12) = 9.87, p = .000 \]

**Improvement**

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Score Closest to Admission</th>
<th>Score Closest to Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>19.25</td>
<td>9.38</td>
</tr>
</tbody>
</table>


### Thought Disorders

86% of clients with psychosis experienced statistically significant improvement in their thought disorder symptoms.

**Brief Psychotic Rating Scale 2018**

\[ t(48) = 6.45, p = .000 \]

**Improvement**

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Score Closest to Admission</th>
<th>Score Closest to Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>46.71</td>
<td>36.86</td>
</tr>
</tbody>
</table>

In response to increasing patient complexity, in 2018, Skyland Trail began administering the Childhood Trauma Questionnaire (CTQ) to admitting patients to measure the severity of five different types of childhood trauma: sexual abuse, physical abuse, emotional abuse, physical neglect and emotional neglect.

Skyland Trail paired the administration of the new assessment with additional training for clinical staff in providing evidence-based trauma-informed care as part of the Skyland Trail integrated treatment model. By December 2018, all Skyland Trail clinical staff were trained to deliver care as trauma-informed providers.

**In 2018, 43 percent of admitting patients who completed the CTQ (N=263) reported experiencing some level of abuse and/or neglect.** Of those who had experienced trauma, 56 percent (N=113) had experienced moderate to severe trauma. These patients were predominantly young adults (49.2%) who identified as female (55.6%) and had a primary diagnosis of major depressive disorder (49.2%).

Patients who had a history of moderate to severe childhood trauma:
- scored more severely on psychiatric symptoms and dysfunction scales than those with mild to no trauma
- were 8.9 percent more likely to have comorbid personality disorder diagnosis
- were 9.0 percent more likely to have comorbid substance misuse diagnosis
- were 5.4 percent more likely to discharge from treatment against medical advice

However when looking at paired pre- and post-treatment outcomes, the trauma-informed standard of care at Skyland Trail was able to help patients with moderate to severe childhood trauma reach statistically significant reductions in hopelessness (graph 1), improve medication attitudes (graph 2), and increase functioning in life and relationships (graph 3).

**What is trauma-informed care?**

Trauma-informed mental health care allows trauma survivors to first address the symptoms of a diagnosed mental illness like depression, anxiety, or borderline personality disorder before processing their trauma.

Completing trauma-informed psychiatric treatment for a mood or anxiety disorder allows clients to develop insight, adopt skills, and build a strong foundation for healthy living. Clients who are trauma survivors are then better prepared and equipped to pursue formal trauma treatment with a specialized mental health provider.

Research shows that trauma – particularly trauma that occurs before ages 5 or 6 – is very predictive of developing all mental illnesses.

Trauma-informed mental health care allows trauma survivors to build resiliency for the hard work of treating trauma.
In 2018, the trauma-informed standard of care at Skyland Trail helped patients with moderate to severe childhood trauma:

- become more hopeful
- improve addititudes about medication
- increase functionality

**GRAPH 1:** Beck Hopelessness Scale Scores 2018 for Patients with Trauma Histories:
Patients with moderate to severe trauma VS. mild to no trauma
N=51 p = .000

**GRAPH 2:** Medication Attitude Inventory 2018 for Patients with Trauma Histories:
Patients with moderate to severe trauma VS. mild to no trauma
N=52 p = .001

**GRAPH 3:** BASIS-32 Overall Change Scores 2018 for Patients with Trauma Histories:
Patients with moderate to severe trauma VS. mild to no trauma
N=51 p = .000
In 2018, on average, our patients experienced significant improvement in:

**SOCIAL RELATIONSHIPS**
**DEPRESSION & ANXIETY**
**DAILY LIVING SKILLS**
**PSYCHOSIS**
**IMPULSIVITY**

In 2018, patients consistently showed statistically significant functional improvement as measured by the BASIS-32. Comprised of 5 subscales, the BASIS-32 contains an overall average score ranging from 0 to 4, with lower scores indicating greater levels of functioning in daily life, interpersonal relationships, impulsivity, psychosis, depression, and anxiety.

Clients as a group showed significant impairment at admission, and low-moderate impairment (and in many cases, no impairment) at discharge.

**BASIS-32 Overall and Subscales Change Scores 2018**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Admission</th>
<th>Discharge</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>1.61</td>
<td>0.75</td>
<td>0.86</td>
</tr>
<tr>
<td>Relation to Self/Others</td>
<td>2.03</td>
<td>1.02</td>
<td>0.98</td>
</tr>
<tr>
<td>Depression/Anxiety</td>
<td>2.16</td>
<td>1.06</td>
<td>1.10</td>
</tr>
<tr>
<td>Daily Living Skills</td>
<td>2.23</td>
<td>1.01</td>
<td>1.22</td>
</tr>
<tr>
<td>Psychosis</td>
<td>0.57</td>
<td>0.21</td>
<td>0.36</td>
</tr>
<tr>
<td>Impulsivity</td>
<td>0.63</td>
<td>0.25</td>
<td>0.38</td>
</tr>
</tbody>
</table>

The 32-item Behavior and Symptom Identification Scale (BASIS-32). © Copyright McLean University, Affiliate of Harvard Medical School.

**IMPROVED MEDICATION ADHERENCE**

Attitude toward taking psychiatric medications is a surrogate measure for medication adherence. Medication adherence is one of the best predictors of sustained recovery.

Scores on the Medication Attitude Inventory (MAI) range from -10 to +10, with higher scores indicating more positive attitudes towards medication use and medication adherence. On average, clients experienced very highly statistically significant improvement with an average attitude score of 3.45 at admission to a 6.12 at discharge.
In 2018, clients continued to experience a statistically significant decrease in feelings of hopelessness, $t(184)=11.49$, $p =0.000$. This finding indicates that, on average, individuals improved from feeling very hopeless at admission to having hopeful future expectations at discharge.

Hope for one's future is one of the best predictors of continued adherence to a recovery plan and protective against suicide.

Human beings are much more than constellations of symptoms, thoughts and behaviors. Hopefulness, social interconnectivity, and a sense of self efficacy define recovery and what it means to be mentally well.

### Beck Hopelessness Scale Scores 2018

- **Nihilistic Preoccupations**
  - $>8$ These individuals see very little hope in all domains of their lives.

- **Some Hopelessness**
  - $3-8$ Individuals display some hopelessness in their thinking. Individuals closer to 8 can be said to be very hopeless while those scoring closer to 3 can be said to be somewhat hopeless.

- **Hopeful**
  - $<3$ Individuals are said to be hopeful.


### IMPROVED ABILITY TO MAKE DECISIONS

- **A sample of 184 clients who completed the Making Decisions Scale at admission and discharge demonstrated statistically significant improvement in their ability to use self-esteem, optimism, and personal power in making decisions.**

A four-point scale, where scores centered around 1 indicate negative beliefs about the ability to make decisions with psychological components like:
- self-esteem
- optimism
- activism
- personal power (beliefs in the efficacy to make decisions on one's own)

Rogers et al. (1997). A consumer-constructed scale to measure empowerment among users of mental health services. Psychiatric Services, 48(8), 1042-1047.
Skyland Trail has specialized in treating complex patients for many years. Many patients enroll in the residential treatment program after participating in other outpatient or inpatient therapeutic programs without results.

In 2018, Skyland Trail treated a large number of young adult patients ages 18 to 25 with a complex constellation of co-occurring disorders: a mood disorder, borderline personality disorder, and a substance misuse disorder.

Patients in this category had outcomes similar to the broader patient population and experienced significant improvement in symptoms, functionality, and hopeful thinking.

PATIENT COMPLEXITY

70% of clients had >3 co-occurring diagnoses confirmed at discharge

Co-occurring disorders include: anxiety disorders, substance misuse, borderline personality disorder, others

CONTINUUM OF CARE
Residential Treatment
Day Treatment
Intensive Outpatient
Independence Coaching
Outpatient Programs: Wellness Clinic, TMS, Vocational Services, Comprehensive Assessment, Alumni Program

AVERAGE LENGTH OF STAY
4-6 MONTHS

SPECIALIZED, EVIDENCE-BASED COMMUNITIES
Cognitive Behavioral Therapy
Dialectical Behavior Therapy
Cognition and First Episode (Young Adults)
Social Integration
Dual Diagnosis (offered as a second area of focus for clients in all communities)

2018 CLIENT COMMUNITY

Primary Psychiatric Diagnoses
46% Major depression
21% Bipolar illness
13% Psychotic disorders
8% Anxiety disorders
12% Other

Age
66% Ages 18-25
17% Ages 26-35
8% Ages 46-55
7% Ages 36-45
2% Ages 55+

Gender
55% Female
44% Male
<1% Gender neutral or non-binary

Skyland Trail

LOCATED IN ATLANTA,
Skyland Trail is a nationally recognized nonprofit mental health treatment organization serving adults ages 18 and older with a primary psychiatric diagnosis. Through our residential, day treatment, and outpatient programs, we help our clients grow, recover, and reclaim their lives.

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