Good Mental Health is not just an absence of mental disorders, it's a state of positive mental wellbeing.

**Traits linked to Poor Mental Health**

- Anxiety
- Depression
- Stress

For several decades, the sole focus of mental health research was around mitigation of mental health disorders like depression and anxiety.

**Traits linked to Good Mental Health**

- Happiness
- Satisfaction with Life
- Healthy Coping Skills
- Strong Interpersonal Relationships
- Managing Negative Emotions
- Resilience
- Self Efficacy
- Optimism and Meaning in Life

In recent decades there has been an increased focus on positive mental health and how to enhance it. Following are a few of the traits linked to good mental health.

Just like maintaining good physical health requires attention, so does "Mental Health"
Research studies investigating the impact of SKY on Mental health and well-being include varied demographies.

There are 22 research studies conducted on SKY and mental health across 6 countries including 4000+ participants.

**DIFFERENT POPULATION STUDIED WITH DIFFERENT STUDY DESIGNS**

- **General Population**
- **Post Traumatic Stress Disorder (PTSD)**
- **HIV Population**

**Study Designs**

- 9 Pre-Post Studies
- 8 Randomized Control Trials
- 3 Cross Sectional Studies
- 2 Open Label Trials
Research studies investigating the impact of SKY on Mental health and well-being include varied demographies as well as conducted with different study designs.

There are 22 research studies conducted on SKY and mental health across 6 countries including 4000+ participants.
The impact of SKY on 92 HCPs’ well-being was assessed during initial lockdown of COVID-19 pandemic before SKY, after SKY and on 40th day of daily SKY

After 40 Days Practice of SKY it was found that

- Anxiety reduced by 27.4%
- Stress reduced by 36.8%
- Depression reduced by 46.7%

SKY helps preserving mental well-being during difficult situations like COVID-19 by reducing stress, anxiety, depression and negative impact.
SKY and Mental Health

RESEARCH STUDIES: GENERAL POPULATION

Study 1.3: Effect of SKY on Stress reduction among general population

100 SKY practitioners (practicing SKY regularly >6 months) were compared with 100 non-SKY practitioners (engaged in walking, pranayama, gymming) for their stress levels. Non-SKY practitioners experienced a higher level of stress than SKY practitioners while SKY practitioners found with

- Increased happiness 3.4 times
- Higher concentration 2.3 times
- Better sleep quality 3.9 times
- Reduced Consumption 1.6 times
- Increased optimism 6.9 times

Study 1.4: Impact of SKY on Wellness among Healthy Adults

The study compared the well-being of 103 healthy adults (48 SKY group & 55 Control) before SKY and after 6 weeks SKY practice.

After 6 weeks of daily SKY practice stress, anxiety, depression reduced and optimism increased among SKY group.

- SKY group:
  - Optimism increased by 6.2%
  - Anxiety reduced by 17.7%
  - Depression reduced by 33.5%
  - Stress reduced by 22.8%

The control group did not show any change after 6 weeks.

SKY alleviates stress and increases optimism more effectively compared to other stress relieving measures & promotes a healthier quality of life.
SKY helps in resisting behavioral addictions, overcome loneliness and improve sense of social connectedness by reducing stress. It promotes a healthier quality of life.

**Study 1.5: Effect of SKY on overcoming stress and improving social connectedness** (Under Publication)

Social connectedness and stress levels were assessed among 473 participants at three different time points before SKY, after SKY and day 40 of SKY practice.

SKY improved social connectedness and reduced stress.

Negative correlation found between social connectedness and stress.

Daily SKY Practitioners had 50.8% improvement in social connectedness greater than less frequent Practitioners.

**Study 1.6: Effect of SKY on the internet dependency and social connectedness** (Under Publication)

Internet Dependencies and social connectedness were compared between 497 SKY & 272 non-SKY practitioners.

**non-SKY found with**

- **5.2%** Lower Social Connectedness
- **12.7%** Higher Internet Dependency

as compared to SKY practitioners.
Study 2.1: Post-traumatic stress relief among Vietnam Veterans
(Published: 2013)

25 Vietnam veterans resistant to several other PTSD treatments (14 SKY group, 11 control group) were studied before SKY and after 6 weeks & 6 months of SKY practice.

After 6 weeks & 6 months SKY practice PTSD symptoms reduced among SKY group.

Control group showed no change during study period of 6-weeks.

% Reduction in PTSD Symptoms from baseline among SKY group

- 6 Weeks SKY: 25.2%
- 6 Months SKY: 37.6%

Study 2.2: PTSD measures among U.S. military group after SKY practice
(Published: 2014)

21 U.S. male veterans of the Iraq or Afghanistan war (11 SKY group, 10 Control group) were studied before SKY & After 1 week, 1 month and 1 year of SKY practice.

PTSD symptoms reduced within 1 week of SKY practice which lasted till a year.

Control group showed no change during study period.

% Reduction in PTSD Symptoms from baseline among SKY group

- 1 week SKY: 28.9%
- 1 Year SKY: 30.1%
SKY and Mental Health

RESEARCH STUDIES: PTSD POPULATION

Study 2.3: SKY Program in Post-traumatic Stress Disorder: A Feasibility Study
(Published : 2020)

19 individuals with PTSD studied before SKY, at 12 and 24 weeks of SKY practice.

The symptoms further reduced at 24 week timepoint even without any formal intervention support.

<table>
<thead>
<tr>
<th>PTSD Symptoms</th>
<th>Depression</th>
<th>Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.9%</td>
<td>23.7%</td>
<td>11.9%</td>
</tr>
</tbody>
</table>

Study 2.4: Effect of a SKY on PTSD and depression among the survivors of the 2004 South-East Asia Tsunami
(Published : 2010)

183 survivors of tsunami were studied before SKY and after 6, 12 & 24 weeks of SKY practice. They were divided into three groups: SKY group, SKY+exposure therapy group and the control group.

PTSD symptoms and depression were reduced among both SKY groups within 6 weeks of SKY.

The improvements were maintained at the 24-week follow-up.

<table>
<thead>
<tr>
<th>PTSD Symptoms</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>64.1%</td>
<td>61.6%</td>
</tr>
<tr>
<td>86.9%</td>
<td>84.2%</td>
</tr>
</tbody>
</table>

PTSD Symptoms and depression were reduced among both SKY groups within 6 weeks of SKY.

The improvements were maintained at the 24-week follow-up.

SKY practice is an efficient, sustainable technique with long term effect on reducing anxiety, depression and improving PTSD symptoms.
Study 3.1: SKY As An Adjunctive Treatment For Major Depressive Disorder (MDD)

RCT was conducted on patients with MDD unresponsive to anti-depressant therapy for ≥8 weeks.

Timepoints: Before SKY, After 4 weeks SKY Practice, After 8 weeks SKY practice

Decrease in depression was found with two different scales after 8 weeks SKY Practice.

While Control Group did not show any changes after 8 weeks.

<table>
<thead>
<tr>
<th>Scale</th>
<th>% Reduction in Depression after 8 weeks SKY</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDRS- Scale 1</td>
<td>52.5%</td>
</tr>
<tr>
<td>BDI- Scale 2</td>
<td>62.3%</td>
</tr>
</tbody>
</table>

Completion Rate | Population Benefited
-----------------|---------------------
77%              | 54%                 

A high subject completion rate of 77%, support the feasibility of SKY as an intervention for MDD outpatients.

More than 54% population in the SKY group showed a greater than 50% improvement in their symptoms.

SKY is effective in reducing depression among individuals with major depressive disorder, especially those unresponsive to antidepressant therapy.
45 untreated individuals with melancholic depression were randomized into three treatment groups SKY, electroconvulsive therapy and medication Imipramine and were studied with standardized depression questionnaire.

- Group 1: SKY (n=15)
- Group 2: electroconvulsive therapy or shock treatment (n=15)
- Group 3: Medication Imipramine (n=15)

Timepoints: At recruitment (baseline) and weekly thereafter for four weeks.

SKY had the same effect of treatment as the antidepressant medication Imipramine at 3rd week of assessment.

STUDY FINDINGS: AFTER 4 WEEKS OF SKY PRACTICE

- A reduction in the depression scores was noted for all three groups
- SKY is better tolerated than electroconvulsive therapy or shock treatment
- The side effects due to medication can be avoided with SKY as an alternative to drugs

67% Remission rate

SKY can be a potential alternative to drugs and shock therapy as a first line treatment for melancholia.
SKY and Mental Health

RESEARCH STUDIES: POPULATION WITH ANXIETY DEPRESSION DISORDER

Study 3.3: Effect of SKY on P300 Amplitude in Dysthymia patients  
(Published : 1997)

24 Individuals with depression disorder (Dysthymia) and 15 healthy individuals were compared with the help of P300 ERP amplitude and depression scale before SKY and after 90 days of SKY.

After 90 Days of SKY Practice

Abnormal and lower EEG P300 waves became similar to that of healthy individuals on 90 day SKY practice among individuals with dysthymia.

Improvement in depression was also observed.

Study 3.4: Antidepressant response of SKY  
(Published : 1998)

Medication-free 22 patients with depression (10 dysthymics and 12 melancholics) were studied with two different scales before SKY and after 1 month.

% Reduction in Depression scores after 1 Month SKY

<table>
<thead>
<tr>
<th>Scale 1: HDRS</th>
<th>Scale 2: BDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>72.0%</td>
<td>63.6%</td>
</tr>
</tbody>
</table>

A significant reduction in depression by 72.0% and 63.6% at one month of SKY practice was observed as measured by two different scales.

SKY is effective in treating mild and melancholic depression. Its antidepressant effect is significant and persists over time.
Study 3.5: Powerful effect of SKY in Dysthymic Disorder (Published: 1998)

37 medication free individuals with dysthymia were studied via video interviews and self-report scales before SKY and after 3 months of SKY practice.

Regular SKY practice for 3 months almost ceased Symptoms of dysthymia among study participants.

% Reduction from baseline after 3 months SKY

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>68.5%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>64%</td>
</tr>
</tbody>
</table>

The idea that your brain can convince your body a fake treatment is the real is called placebo effect.

The typical placebo response rate in patients with dysthymia for any intervention is 18% and it disappears by 5 weeks.

The therapeutic effect of SKY persisted till 3 months among dysthymia patients which indicates its not a placebo effect.

SKY has the advantage of making the patients self reliant and reducing health care costs.
Patients were studied for the effect of SKY on anxiety and depression before SKY and after 4 weeks of SKY.

**Study 3.6: Long and short SKY In Major Depressive Disorder (MDD)**  
(Published : 2000)

Differences between the effect of Short and Long SKY was studied among 30 individuals with major depressive disorder for before SKY.

**Effect of Long SKY in MDD = Effect of Short SKY in MDD**

Depression and anxiety decreased significantly & equally among both SKY group during study period.

**Study 3.7: Therapeutic effects of SKY on mild-moderate depression and anxiety patients**  
(Published : 2019)

991 Patients were studied for the effect of SKY on anxiety and depression before SKY and after 4 weeks of SKY.

<table>
<thead>
<tr>
<th>% Reduction after 4 Weeks of SKY Practice</th>
<th>Depression Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>80% Anxiety</td>
<td>78% Depression</td>
</tr>
<tr>
<td>74.6%</td>
<td>After 4 weeks of SKY clinically meaningful change was found among</td>
</tr>
</tbody>
</table>

SKY can be a therapeutic substitute. Both Short SKY and Long SKY are equally effective in reducing anxiety and depression.
Study 3.8: SKY as an adjunct treatment in generalized anxiety disorder (GAD) with or without comorbidities (Published: 2012)

29 Patient with Generalized Anxiety Disorder was studied with HAM-A test measuring overall anxiety before SKY and after 4 weeks of SKY practice.

**AFTER 4 WEEKS OF SKY**

- **Response Rate was 73%**
  - A decrease of ≥50% on anxiety scores was seen in 21 out of 29 subjects
- **Remission Rate was 41%**
  - A very low anxiety scores and achieved by 12 out of 29 subjects

Study 3.9: Anti-anxiety efficacy of SKY in generalized anxiety disorder (Published: 2015)

69 outpatients diagnosed with Mood/anxiety disorders, divided into two groups (SKY+medication, SKY) and were studied before SKY, after 2 weeks, 3months & 6 months SKY practice

<table>
<thead>
<tr>
<th>Medication + SKY</th>
<th>Group 1</th>
<th>% Reductions in Anxiety after 6 Months SKY</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKY</td>
<td>Group 2</td>
<td>34.7%</td>
</tr>
</tbody>
</table>

|                  |          | 51.0%                                    |

SKY is a potentially valuable adjunct to medication for patients with GAD and treatment-resistant GAD. It is an equally effective complementary therapy for patients with anxiety who are on medication and not keen on medication.
SKY and Mental Health

RESEARCH STUDIES: HIV INFECTED POPULATION

Study 4.1: Evaluating quality of Life among HIV patients who practice SKY

(Published : 2015)

The quality of life of 61 adults infected with HIV were studied before SKY, after 4 weeks, 8 weeks and 12 weeks of SKY practice.

They were randomized into two groups:

- Group 1 (31 participants)
- Group 2 (30 participants)

After 12 weeks of SKY practice compared to Group 2, Group 1 found with

- Improved Overall Quality of Life
- 12.5% improvement was seen in Physical Domain of Quality of Life

Overall improvement in the Quality of Life was observed in the SKY group, as compared to the non-participating control group.

An improvement of 12.5% in the physical domain of the Quality of life after 12 week SKY practice, in the SKY group was observed.

SKY is a low cost strategy which could be used by HIV patients for a better quality of life.
Study 5.1: SKY as an intervention to manage psychoactive substance use
(Published: 2015)

111 incarcerated males recovering from substance abuse and affected by mental illness were provided SKY to evaluate its impact on mitigating psychological problems before SKY and after 6 weeks of SKY.

Participants with reduced symptoms of anxiety

<table>
<thead>
<tr>
<th>General health of patients</th>
<th>Positive well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.0%</td>
<td>25.7%</td>
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</tbody>
</table>

Recovered from mental disorder and became symptom free

5X Increase

Study 5.2: Effect of SKY on Depression Among Alcohol Dependent Individuals
(Published: 2019)

60 individuals with alcohol dependency (30 SKY and 30 Control) were studied for their depression levels on Day 0 (before SKY) and Day 7 (after SKY).

<table>
<thead>
<tr>
<th>Depression Level</th>
<th>Before SKY</th>
<th>After SKY</th>
</tr>
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<tbody>
<tr>
<td>Mild</td>
<td>30%</td>
<td>0%</td>
</tr>
<tr>
<td>Moderate</td>
<td>70%</td>
<td>66%</td>
</tr>
<tr>
<td>Severe</td>
<td>0%</td>
<td>44%</td>
</tr>
</tbody>
</table>

In control group moderate depression increased on Day 7

SKY helps to improve physical-psychological wellbeing and overall functioning of individuals with substance dependency. It also helps them to alleviate depression.