

#### **INTRODUCTION**

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**







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

**Anxiety** 

**Depression** 

**Stress** 

#### **Traits linked to Good Mental Health**

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



**Happiness** 



Satisfaction with Life



Healthy Coping Skills



Strong Interpersonal Relationships



Managing Negative Emotions



Resilience



**Self Efficacy** 



Optimism and Meaning in life



**RESEARCH STUDIES: AN OVERVIEW** 

**Total Studies** 

22

**Total Population** 

4000+ 18-80

**Age Group** 

No. of Countries **Conducted Studies** 

Research studies investigating the impact of SKY on Mental health and well-being include varied demographies

> General **Population**

**Post Traumatic Stress Disorder** (PTSD)

HIV **Population** 

**Anxiety Depression Disorder** 



**DIFFERENT POPULATION** STUDIED WITH DIFFERENT **STUDY DESIGNS** 

**Substance Dependent Population** 

- **Pre-Post Studies**
- **Randomized Control Trials**
- **Cross Sectional Studies**
- **Open Label Trials**



**RESEARCH STUDIES: AN OVERVIEW** 

**Total Studies** 

**22** 

**Total Population** 

4000+

**Age Group** 

18-80

No. of Countries
Conducted Studies

6

Research studies investigating the impact of SKY on Mental health and well-being include varied demographies as well as conducted with different study designs.

### **Different Population under Study**

### General Population

- 982
- Population with Post Traumatic Stress Disorder(PTSD)
- 983
- Population with
  Anxiety Depression
  Disorder
- 982
- Substance Dependent Population
- 222

**HIV Population** 

### **Different Study Designs**

- Pre-Post
- Randomized
  Control Trials
- Cross Sectional
- Open Label Trials



#### **RESEARCH STUDIES: GENERAL POPULATION**

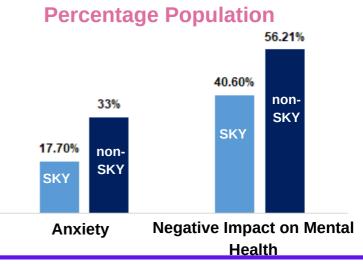
### Study 1.1: Association Between SKY & Mental health of Indians during COVID-19

(Published: 2021)

Self reported mental health of 554 SKY practitioners was compared with 402 non-SKY practitioners during initial lockdown of COVID-19 pandemic in this cross sectional study.

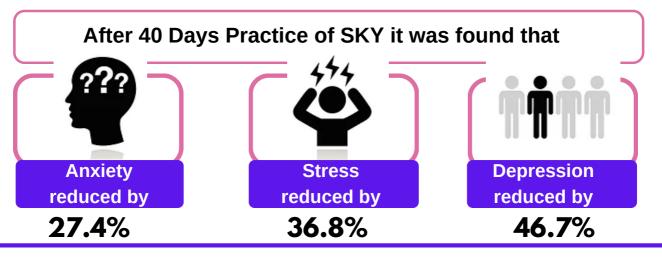
#### **SKY Practitioners**

found with lower anxiety & lesser negative impact of pandemic compared to non-SKY practitioners



# Study 1.2: Effect of SKY on healthcare professionals' well-being during the early part of COVID-19 (Published On: 2021)

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



SKY helps preserving mental well-being during difficult situations like COVID-19 by reducing stress, anxiety, depression and negative impact 3



#### **RESEARCH STUDIES: GENERAL POPULATION**

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

(Published: 2018)

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



Higher concentration



Better sleep quality



Reduced Consumption



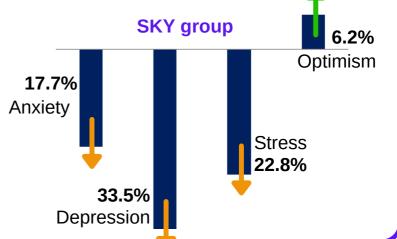
Increased optimism

### Study 1.4: Impact of SKY on Wellness among Healthy Adults (Published: 2007)

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

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



#### **RESEARCH STUDIES: GENERAL POPULATION**

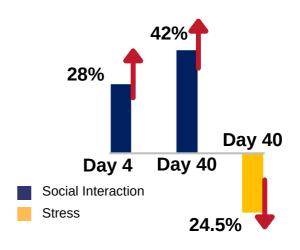
# Study 1.5: Effect of SKY on overcoming stress and improving social connectedness (Under Publication)

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 corelation found between social connectedness and stress

Daily SKY Practioners 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



#### **RESEARCH STUDIES: PTSD POPULATION**

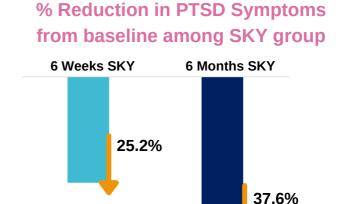
### Study 2.1: Post-traumatic stress relief among Vietnam Veterans

(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



### Study 2.2: PTSD measures among U.S. military group after SKY practice

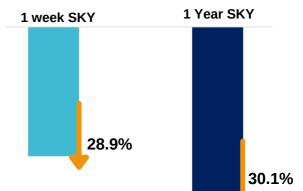
(Published: 2014)

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





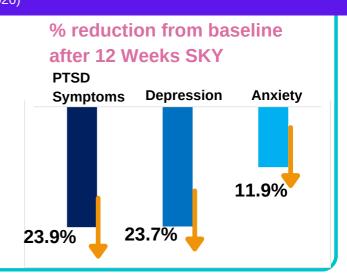


#### **RESEARCH STUDIES: PTSD POPULATION**

## 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



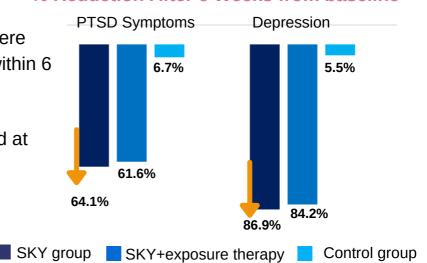
# Study 2.4: Effect of a SKY on PTSD and depression among the survivors of the 2004 South-East Asia Tsunami (Published: 2010)

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

#### % Reduction After 6 Weeks from baseline

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



# RESEARCH STUDIES: POPULATION WITH ANXIETY DEPRESSION DISORDER

Study 3.1: SKY As An Adjunctive Treatment For Major Depressive Disorder (MDD)

(Published: 2017)

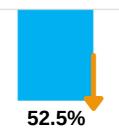
RCT was conducted on patients with MDD unresponsive to anti-depressant therapy for ≥8weeks

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

% Reduction in Depression after 8 weeks SKY HDRS- Scale 1 BDI-Scale 2





**Completion Rate** 

**Population Benfited** 

**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, espicially those unresponsive to antidepressant therapy



# RESEARCH STUDIES: POPULATION WITH ANXIETY DEPRESSION DISORDER

Study 3.2: Antidepressant effect of SKY among individuals with melancholic depression (Published: 2000)

45 untreated individuals with melancholic depression were randomized into three treatment groups SKY, electroconvulsive therapy and medication Imipramine and were studied with standardized depression quessionnaire



**Group 1: SKY** 



**Group 2: electroconvulsive** therapy or shock treatment

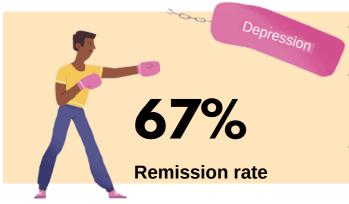


Group 3: Medication Imipramine

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



# 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**

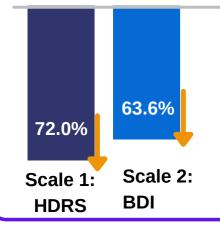
Abnormal and lower EEG P300 waves became similar to that of healthy individuals on 90 day SKY practice among individuals with dysthymia

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



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



# RESEARCH STUDIES: POPULATION WITH ANXIETY DEPRESSION DISORDER

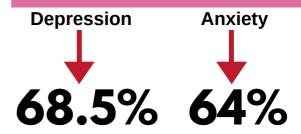
Study 3. 5: Powerful effect of SKY in Dysthymic Disorder (Published: 1998)

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







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



# RESEARCH STUDIES: POPULATION WITH ANXIETY DEPRESSION DISORDER

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

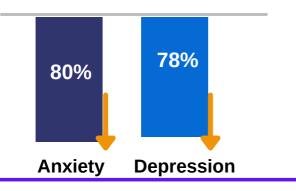
Effect of Long SKY in MDD = Effect of Short SKY in MDD

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

# % Reduction after 4 Weeks of SKY Practice



After 4 weeks of SKY clinically meaningful change was found among

74.6%

**Depression Patients** 

#### Sri Sri Institute for Advanced Research



## **SKY and Mental Health**

# RESEARCH STUDIES: POPULATION WITH ANXIETY DEPRESSION DISORDER

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

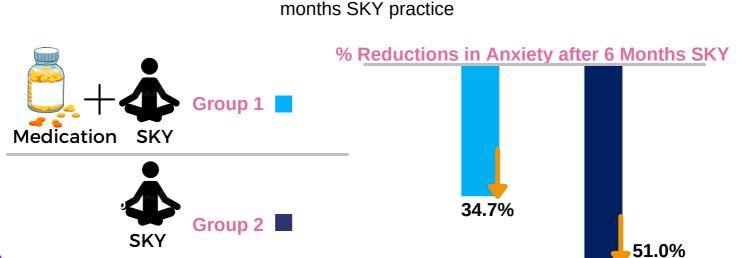
Remission Rate was 410/0

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



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

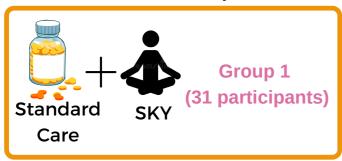


#### RESEARCH STUDIES: HIV INFECTED POPULATION

# 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 2 (30 participants) Standard Care

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



12.5%

Improved Overall Quality of Life

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.



# RESEARCH STUDIES: SUBSTANCE DEPENDENT POPULATION

#### 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

**5X** 

Increase

Participants with reduced symptoms of anxiety



General health of patients

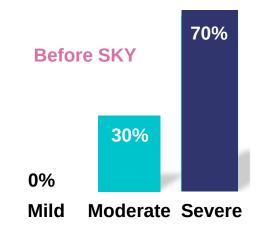
Positive well-being

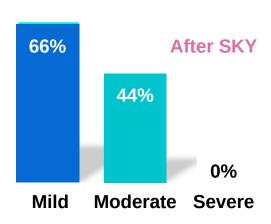
#### **Patients**

Recovered from mental disorder and became symptom free

# 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)





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.