



*The Art of Living Foundation
International Research Committee*

THE HEALING BREATH TECHNIQUE/Sudarshan Kriya IN THE TREATMENT OF DEPRESSION

SHORT RESEARCH SUMMARY (*Independent Research*)

Sudarshan Kriya and accompanying breathing techniques (SK&P) demonstrated a 68-73% success rate in treating people suffering from depression, regardless of severity of the depression. Substantial relief was experienced in three weeks. By one month, patients were considered to be in remission. At three months, the patients remained asymptomatic and stable.

Furthermore, SK&P produced highly beneficial biological effects on brain and hormone function. The P300 ERP EEG brainwave pattern and NREM brainwave pattern, which measure electrical brainwave activity and are abnormal in many depressed people, returned to the normal range by ninety days. Plasma prolactin, a hormone in the blood which is believed to be a key factor in producing relief from depression, increased after the very first SK&P session. Levels of plasma cortisol (the stress hormone) decreased significantly after three weeks.

In a comparison study, SK&P was statistically as effective as the conventional treatments for depression studied. Yet, in contrast to the usual treatments for depression, SK&P is natural and free of unwanted side effects. It is self-administered and self-empowering. It can greatly reduce doctor and hospital caseloads, thus making SK&P cost effective and staff effective as well.

Dr. Janakiramaiah, M.D., Ph.D., D.P.H., psychiatrist, medical researcher, and Director of the Yoga Research Group at the National Institute of Mental Health and Neurosciences (N.I.M.H.A.N.S.) of India has conducted several of these studies. He concluded that Sudarshan Kriya has "remarkable therapeutic effects" and "is clinically feasible and effective. It has the potential to become a first-line treatment of dysthymic [chronic, mild depression] patients and possibly in mild and moderate forms of major depressive disorder."

LONG RESEARCH SUMMARY

These six research studies were conducted by the National Institute of Mental Health and Neurosciences (NIMHANS) of India. NIMHANS has been conducting independent clinical and laboratory studies on the neurophysiological effects, therapeutic benefits, and clinical applicability of SK&P in depressed patients.

#1 “Normalization of P300 Amplitude following Treatment in Dysthymia.” P.J. Naga Venkatesha Murthy, B.N. Gangadhar, N. Janakiramaiah, and D.K. Subhkrishna. Biological Psychiatry, 1997: Vol. 42, pp. 740-743

Study details: This study compared 15 dysthymic and 9 melancholic depression patients to 15 normal control individuals on P300 amplitude and several depression scales--The Hamilton Rating Scale for Depression, the Beck Depression Inventory, and the Clinical Global Impressions Scale, and then treated the patients with SK&P.

Results: This study showed that SK&P was effective in treating mild and melancholic depression. Depressed people have a particular EEG brainwave abnormality, which is measured, by P300 ERP amplitude. By day 30 there was significant relief from depression in the groups treated with SK&P, as measured by the P300 amplitude and standard depression scales. By day 90, their P300 had returned to normal: their P 300 was indistinguishable from normal controls and they remained stable and depression free.

#2.” Therapeutic Efficacy of Sudarshan Kriya Yoga (SKY) in Dysthymic Disorder”. N Janakiramaiah, B.N.Gangadhar et al NIMHANS Journal, January 1998 pp 21-28

Study Details: 46 Dysthymic patients were treated as out-patients with Sudarshan Kriya as their sole treatment. SK&P were learned at their hospital during the first 7 days. They were then encouraged to practice once daily at home for the next three months. Evaluation of depression was based on the Hamilton Rating Scale for Depression, Beck Depression Inventory, Clinical Global Impression, Subjective Global Impression, Comprehensive Psychopathology Rating Scale and a video version of BDI. In addition, blood samples to measure plasma prolactin and cortisol levels were also taken before the study, and immediately before and after the first SK&P session.

Results: 68% of patients completing the program experienced remission from depression both at the one month and three month retest times. Blood analysis revealed elevation of plasma prolactin and not cortisol after the very first SK&P session. This is important since elevated plasma prolactin may be crucial in producing an effective anti-depressant response. Stable cortisol levels indicate the experience of SK&P is not stressful.

The patient group that didn’t remit from depression practiced SK&P significantly less frequently (3 or less times weekly) than was prescribed.

The authors concluded that SK&P has ‘remarkable therapeutic effects’ in treating dysthymia and that it ”... may be a more acceptable and efficacious alternative to medical management of dysthymia for both acute treatment and relapse prevention. It has the advantage of fostering the patient’s autonomy and self-reliance besides cutting health care costs.”

3. “P300 amplitude and antidepressant response to Sudarshan Kriya Yoga (SKY)“. P.J. Naga Venkatesha Murthy, N. Janakiramaiah, et. al. Journal of Affective Disorders 50 (1998) pp.45-48.

Study Details: This is a study of 15 dysthymic and 15 melancholic depression patients (male and female) whose sole treatment was SK&P. The study investigated whether treatment success is affected by a patients ‘biological dysfunction’. With some treatments for depression, such as ECT, patients having more severe “biological dysfunction“--i.e. abnormally low P300 ERP brain wave patterns-- that require longer treatment times before responding.

Results: 73% of patients showed significant improvement following SK&P therapy at the one month mark, and remission persisted at retesting at 3 months. Neither severity of depression, nor severity of biological dysfunction influenced the quick response time or degree of effectiveness of SK&P.

The author concluded that SK&P ”...has independent antidepressant effects... exerts its antidepressant effect in about 3 weeks...[and] is uniformly effective regardless of the pretreatment P300 amplitude”.

#4 Effects of Sudarshan Kriya in Dysthymic Disorders., B.L. Meti, T.R.Raju, N. Janakiramaiah, N Venkatesh, P.J. Murthy, B.N. Gangadhar. Departments of Neurophysiology and Psychiatry, NIMHANS. 1996.

Study Details-- Depressed people have a distorted dream stage EEG brainwave pattern. This study examined the dream stage EEG patterns in 20 dysthymic patients treated with SK&P.

Results: With practice of SK&P, the dream stage EEG patterns significantly improved. There was a reduction in REM latency onset and an improvement in NREM stages. This demonstrates that SK&P produces objective biological effects.

The authors concluded that SK&P is “.. a good alternative for the management of dysthymic patients.”

Study #5 : Antidepressant Efficacy of Sudarshan Kriya Yoga (SKY) in Melancholia: A Randomized Comparison With ECT and Imipramine .” N Janakiramaiah, B.N.Gangadhar, P.J.N.Venkatesha Murthy, et. al.. Journal of Affective Disorders, January 2000.

Study Details: This is a three group study comparing the effectiveness of SK&p alone, antidepressant drug therapy alone, and electroshock therapy (ECT) in treating major depression. The patients in this study were all hospitalized for major depressive

disorder with melancholic features--severe depression. They were randomly assigned to one of three treatments. They remained in the hospital for the duration of this one month study.

Dosages were as follows:

SK&P: once daily for approximately one half hour

Drug therapy: 150-225mg. imipramine taken orally twice daily

ECT: thrice weekly

Results: Sixty nine percent of patients prescribed SK&P experienced relief from symptoms of depression. Substantial relief was experienced from once daily practice of SK&P within 3 weeks, and was documented as statistically significant at one month. SK&P demonstrated a very high success rate, and was statistically as effective as antidepressant drug therapy. There was also no significant difference between the grand means of SK&P and ECT (however an interaction effect between time of treatment and ECT was seen at week 3). Furthermore, SK&P was seen as a valuable tool in preventing relapse. In addition, SK&P is free of the expense and dependency that other treatments can create.

Study #6: Stress-related biochemical effects of sudarshan kriya yoga in depressed patients. B.N.Gangadhar, N.Janakiramaiah, B.Sudarshan, K.T.Shety National Institute of Mental Health and Neurosciences, Bangalore 560029, INDIA Oct. 1999.

Study Details: A recent study was conducted on 36 patients with major depressive disorder at NIMHANS. Twenty patients completed the SK&P training program and practiced in the hospital for an additional two and a half weeks. They were assessed on the Hamilton Rating Scale for Depression (HRSD) and Beck Depression Inventory (BDI) before treatment and weekly thereafter. Blood samples were drawn before and after learning Sudarshan Kriya on day 3 and pre and post Sudarshan Kriya on day 21.

Results: Sudarshan Kriya was found to produce statistically significant reductions in major depressive disorder over the four week study. Significant reductions in plasma cortisol levels (cortisol is known as the 'stress' hormone) occurred when patients were post tested on day 21. This significant reduction in cortisol levels suggests that Sudarshan Kriya produces anti-stress effects.

If you have any questions, or would like information about programs offering Sudarshan Kriya and its' related practices in the treatment of depression, please contact the International Research Committee at research@artofliving.org, research@aoluniversity.org, or at (800) 897-5913, ext. 5 (USA), 0049-7804-910923 (Europe).