

ADVANCED CENTRE FOR YOGA, NIMHANS, BANGALORE-29

(IN ASSOCIATION WITH MORARJI DESAI NATIONAL INSTITUTE OF YOGA, NEW DELHI)



Samatvam

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Yoga & Child Mental Health:

a Workshop for Heads of Institutions. 29th December, 2009

The Advanced Centre for Yoga at NIMHANS in association with Morarji Desai National Institute of Yoga, New Delhi and Karnataka State Secondary School Teachers' Association (Bangalore South) organized a one-day workshop on **“Mental Health & Yoga in Schools”** for heads of various educational institutions in and around Bangalore on 29th December, 2009. The workshop was inaugurated by dignitaries like Dr.D.Nagaraja, Director/VC, NIMHANS, Prof. K.Balakrishna Bhat, Ex-MLA and President, Karnataka Secondary School Teachers' Association. Dr. B.N.Gangadhar, Program Director, Advanced Centre for Yoga, NIMHANS was present during the occasion.

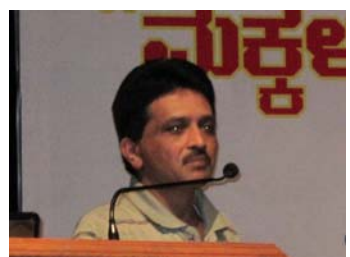
Around 350 heads of various educational institutions participated in the workshop.



The inaugural ceremony was followed by keynote address **“Health Benefits of Yoga”** by Dr.R.Nagaratna, Dean of Life sciences, SVYASA University, Bangalore.



The morning session of the workshop ended with a lecture on **“Psychological & Learning Problems in children”** by Dr.Shoba Srinath, Professor & Head, Child and Adolescent Psychiatry Unit, Dept. of Psychiatry, NIMHANS. She spoke about behavioral issues commonly seen in school going children further discussing how teachers can recognize the early symptoms and play a role in the management of these psychological and learning problems in children.



In the afternoon, Dr.B.N.Gangadhar, Program Director, Advanced Centre for Yoga, NIMHANS gave a lecture on **“Barriers to Yoga Education in Schools: Possible Solutions.”**

The last session was on **“Yoga in School Mental Health”** followed by a practical demonstration by Dr.Omkar, Iyengar Yoga Expert and Senior Scientist, Indian Institute of Science, Bangalore.

The workshop ended with a valedictory ceremony presided by Sri. Vishweshwara Hegde Kageri, Minister for Primary & Secondary Education, Govt of Karnataka. Addressing the gathering he stressed the importance of yoga in schools and governments plans for introducing yoga in the schools.



Dr. Shivarama Varambally
Associate Professor
Department of Psychiatry
Member, Monitoring Committee
Advanced Centre for Yoga

*“Caregivers of
psychiatric &
neurological
patients benefit
from Yoga “*

Editorial.....

CARING THE CAREGIVERS

Yoga for Beyond-patient care

A lot of progress has been achieved in providing stress relief and other benefits to patients with psychiatric and neurological disorders through the medium of yoga therapy. However, the needs of the caregivers, who have the great burden of taking care of these chronic patients, are still not a major focus for research or service delivery.

There is enough evidence that caregivers of patients with psychiatric and neurological disorders have significantly more stress. They also have higher rates of depression and anxiety than the general population. It has also been shown that the caregivers' ability to handle negative emotions and stress has a significant impact on the mental state of patients with psychiatric disorders. On the other hand, yoga therapy has sound evidence in reducing stress, anxiety and depression in both healthy adults and in patients suffering from various disorders.

Therefore, the need of the day is to develop services and research models to meet the felt needs of this population. In this regard, the Advanced Center for Yoga - Mental health and Neurosciences at National Institute of Mental Health and Neurosciences, organized a public programme to create awareness about this subject on 18th February 2010. The focus was specifically on the caregivers of psychiatric and neurologically ill patients and the programme was very well attended. Following this, we have launched a regular yoga therapy session for caregivers of patients in our hospital. Two research studies have also been completed, dealing with yoga therapy for caregivers of inpatients with neurological disorders and schizophrenia respectively. A clinical trial to study the efficacy of a brief yoga programme for caregivers of outpatients with schizophrenia is being launched shortly.

These initiatives will hopefully lead to widespread use of yoga as an intervention to decrease the stress and burden of the caregivers, who are dealing with the tremendous pressure of handling difficult psychiatric and neurologically ill kin everyday. Participation of larger number of subjects in these interventions and hence a larger data base would offer opportunities for observational research as well as other research ventures in this area.

Dr. Shivarama Varambally is Associate Professor of Psychiatry at National Institute of Mental Health & Neurosciences (NIMHANS), Bangalore. He is a member of monitoring committee of Advanced Centre for Yoga at NIMHANS. His research interests include Yoga in psychiatric disorders, Electro Convulsive Therapy (ECT), Tran cranial Magnetic Stimulation (rTMS), Depression, Schizophrenia and related disorders. He has several research articles published in various national and international journals. He is currently guiding a yoga related PhD study undertaken at NIMHANS.

Yoga Therapy Services for Psychiatric & Neurological Disorders

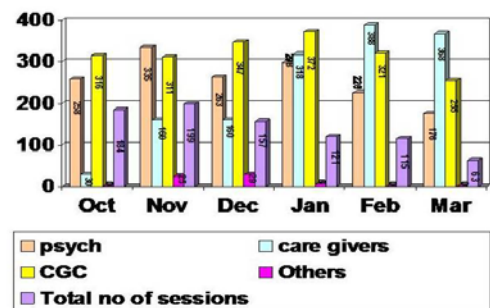


Advanced Centre for Yoga at NIMHANS has been offering Yoga therapy for both in-patients and outpatients. Close to 3790 patient/therapy sessions were conducted for a total of 175 patients suffering from different psychiatric and neurological conditions referred from clinical services of NIMHANS. Each patient received yoga therapy session from seven days to one month. 1424 caregiver/sessions were offered for caretakers/attenders/relatives of patients with psychiatric and neurological disorders.

Diagnosis	No of Patients
Schizophrenia	124
Depression/ Dysthymia	68
Bipolar Affective Disorder	28
Obsessive Compulsive Disorder	19
Anxiety Disorders	6
Neurological Disorders (Epilepsy, Headache, Stroke , MCI etc)	18

Table - No of new patients treated at Advanced Centre for Yoga, NIMHANS

Half yearly statistics Oct-2009 to March 2009



Yoga Services for Elderly

Globally elderly population is raising due to increased life expectancy and improved social conditions. Developing countries like China, India and Indonesia are projected to have the largest number of elderly by 2025 having 470 million people aged 65 and above, almost double the number in developed countries.

Several chronic medical conditions such as Diabetes, Hypertension, Arthritis and Physical frailty co-existing with depression and cognitive impairment often leads to poor quality of life in elderly. Such a state is often seen as a precursor to neurodegenerative conditions like dementia which accounts for significant morbidity and mortality among elderly.

Mild Cognitive Impairment is said to be a transitional state between normal aging and dementia, or more specifically, Alzheimer disease (AD). It refers to the clinical state of individuals who are memory impaired but are otherwise functioning well and do not meet clinical criteria for dementia. Reviews of several studies have indicated that these individuals are at an increased risk for developing AD ranging from 1% to 25% per year. Currently there is no approved treatment for this condition and an active life through regular physical activity, socialization and mental stimulation are the only alternative approaches suggested.

Advanced Centre for Yoga launched regular Yoga services to elderly on 1st October on the eve of World Elders day. Dr.B.N.Gangadhar, Program Director of the Yoga center inaugurated the services by lighting the lamp and Dr.P.T.Sivakumar, Asst professor, Dept of Psychiatry, NIMHANS and several elderly participated in the inauguration ceremony. Following this Dr.Hariprasad.V.R, Senior Research Fellow at Yoga center, NIMHANS gave a presentation on yoga therapy services and research activities on elderly planned in Advanced Centre for Yoga at NIMHANS. The ceremony ended with a brief yoga session for the participants.

Community Yoga Services.....

Gunjur Community Yoga Program (Treatment / Awareness) , 07 / 11/ 09 to 16/ 11/09

A seven day Yoga therapy treatment cum awareness program was conducted between 07/11/09 to 16/11/09. Program was inaugurated by Prof Narayana Reddy, Former Director of NIMHANS by lighting the lamp on 07/11/09 at 11 a.m. Prof.B.N.Gangadhar, Program Director of Advanced centre for Yoga NIMHANS was presided over the function. Prof Narayana Reddy addressed the patients regarding necessity of Yoga in modern stress related diseases. Prof Gangadhar BN and Dr Naveen. G.H (Senior Research fellow, Advanced centre for Yoga) addressed the patients regarding importance of Yoga in psychiatric and neurological disorders.

Seventeen patients with various Psychiatric and neurological disorders underwent Yoga therapy with enthusiasm for 7 days. Regular Yoga therapy classes were conducted for one hour duration. Basic Pre and post assessment was done in respect to their sleep, quality of life, appetite, pain, stress etc. Most of the patients had shown improvement in their symptoms and given positive feedback.



Anekal Community Yoga Program (Treatment / Awareness) , 07 / 11/ 09 to 16/ 11/09

One day Yoga therapy awareness program was conducted on 22/02/10. Program was inaugurated by CMO of Anekal taluk Hospital Dr Kemparaju by lighting the lamp at 11 a.m. Dr Kishore and Dr Naveen from NIMHANS, Dr Shivakumar, Dr Nalini, Dr Venkatesh, medical specialists from Anekal Taluk hospital attended the function. Dr Kemparaju and Dr Kishore, Senior Psychiatrist addressed the patients regarding necessity of Yoga in modern stress related diseases. Dr Naveen. G.H (Senior Research fellow, Advanced centre for Yoga) addressed the patients regarding importance of Yoga in Psychiatric and neurological disorders. Around 100 patients attended the program.

Yoga therapy class was taken by Dr Naveen. G.H and Malamma for one hour duration after the function. Around 50 patients from various Psychiatric and Neurological disorders practiced Yoga.



National Yoga Week (18th Feb, 2010)

Advanced Centre for Yoga, NIMHANS in association with Nursing Department, NIMHANS conducted a half day workshop for caregivers of patients on 18th February, 2010. This was arranged as a part of National Yoga Week Celebrations hosted by Moraji Desai National Institute of Yoga, New Delhi.

The workshop was inaugurated by Dr. Anjaneya Murthy, Joint Director, AYUSH Medical Education, Govt of Karnataka. The other dignitaries present were Dr.Omkar, Senior Scientist & Yoga Expert, IISc, Bangalore. Dr. Reddemma, Prof of Nursing and Dean, Behavioral Sciences, NIMHANS, Dr.K.Lalitha, Prof & Head, Dept of Nursing, NIMHANS and Dr.B.N.Gangadhar, Program Director, Advanced Centre for Yoga. A regular yoga program for the caregivers was announced during the ceremony.

Around 250 caregivers participated in the program. Dr. Omkar, Senior Iyengar Yoga Expert gave key note address on "Yoga for Stress Management" and gave a practical demonstration involving the patients and their caregivers. The program ended with a yoga demonstration show by the patients from Dept. of Psychiatric & Neuro Rehabilitation (DPNR).



Academic Program: Guest Lecture Series

Advanced Center for Yoga, NIMHANS is hosting guest lectures by eminent experts in the field of Yoga research and conducts regular seminars on various topics related to yoga by staff of Yoga center as a part of center's academic activities.

18th December, 2009 , 5.30pm to 7.30pm, Venue: Advanced Centre for Yoga, NIMHANS

Lectures by: *Dr. Shirley Telles, Head, ICMR Advanced Centre for Yoga & Neurophysiology, SVYASA*

Dr. Satbir Singh Khalsa, Harvard Medical School & Director of Research, Kundalini Research Institute

Dr. Shirley Telles spoke on **“Neurophysiology of meditation”**. She gave detailed overview about different meditation techniques like Transcendental Meditation™, Brahmakumaris Raja Yoga Meditation, OM meditation and its effects on different physiological parameters such as heart rate , galvanic skin resistance , Oxygen consumption, EEG and other neuroimaging techniques. She specifically emphasized her work on Cyclic meditation which combines certain yogic postures and relaxation. Highlighting the potentials of meditation in facilitating transmission at thalamus, producing changes in the centres concerned with memory, executive functions & attention and promoting sleep, she emphasized the therapeutic application of meditation in clinical practice with special reference to psychiatry and neuroscience.



Dr. Khalsa presented a lecture on **Yoga in Stress and Anxiety**. He stressed the importance of yoga practice in arousal reduction, stress coping, mind/body awareness, self regulation & psychological changes. While talking on research in yoga, he eluded that most of the yoga therapy research has been done on cardiovascular disease, psychiatric disorders & respiratory disease. In psychiatric disorders, more work has been done on depressive disorders, addictive behavior & anxiety disorders. He highlighted about the findings in one of his studies in high school students (2008). The yoga group had showed increase in resilience & social stress, decrease in anger control, fatigue, anxiety & test anxiety, but there was no change in attitude to school. In the same study during spring 2009, there was decrease in negative affect & tension, increase in anger suppression, life purpose & satisfaction; and resilience. At the end of the session questions from the attendees were satisfactorily answered by the speakers.



26th February, 2010 , 5.30pm to 6.30pm, Venue: Advanced Centre for Yoga, NIMHANS

Lectures by: *Mr. Ramaswamy, Regional Head, Patanjali Yoga Shikshana Samiti, Bangalore*

Mr. Ramaswamy, Regional Head, Patanjali Yoga Shikshana Samiti, Bangalore spoke on **“ Samagra Yoga Darshana”**. He started with a brief introduction to Yoga philosophy. He gave a classical insights into different Yogic practices such as Yama, Niyama, Asana, Pranayama and Meditation. He stressed the importance of qualities like keen observation, perseverance, dedication and passion for a yoga instructor to reap beneficial effects out of a yoga session. Further, he said wishing and showing compassion towards the patients is key to adherence to Yoga sessions. He ended his lecture with a meditation session. Thirty yoga enthusiasts from different departments participated in the lecture.

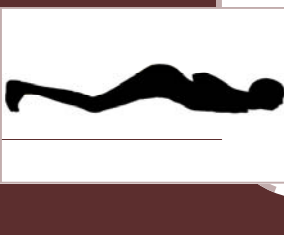
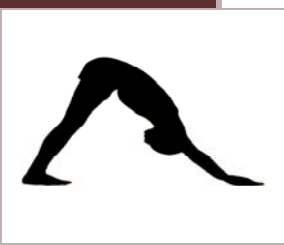
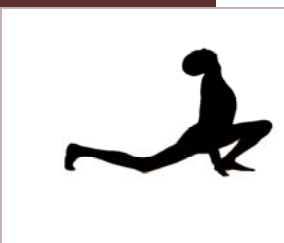
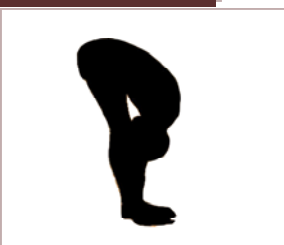
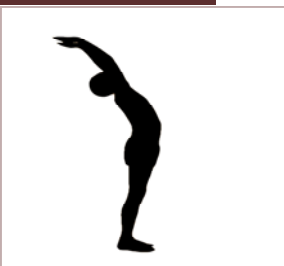
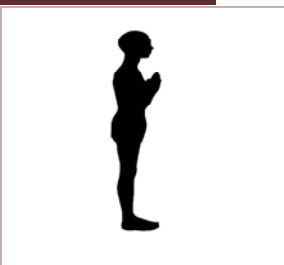
25th March, 2010 , 4.00pm to 5.00pm, Venue: Advanced Centre for Yoga, NIMHANS

Lectures by: *Mr. Shesha.B.V, Hon Secretary, Abalashrama, Bangalore*

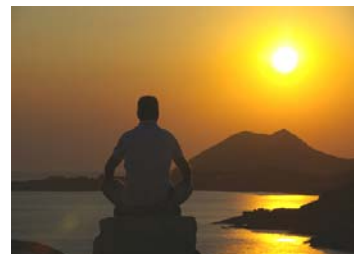
Mr. Shesha.B.V conducted a lecture and practical workshop on “Pranayama”. Stressing the immense health benefits of pranayama, he taught different simple pranayama techniques which could be inculcated into busy daily life. Thirty participants attended this lecture also experiencing a practical lesson on pranayama.

Suryanamaskara: A Complete guide to Sun Salutation

Gangadhar BN, Hariprasad VR



Suryanamaskara is a popular form of yogic exercise often practiced in the beginning of yoga session. With its unique sequence of yogic postures often accompanied with chants, Suryanamaskara is recognized as a complete form of physical and spiritual exercise. The sequence of movements integrated with breath and chants in Suryanamaskara can be practiced in various levels of awareness incorporating asana (physical level), pranayama (pranic level), and mantra, chakra meditation.



Traditionally, Suryanamaskara is preferred to be practiced facing the Sun during Sunrise and sunset.

Etymology:

The word “Suryanamaskara” is derived from Sanskrit words “Surya” meaning The Sun God and “Namaskara” means obeisance or prostrations.

Worship of Lord Surya or Sun God can be dated back to thousands of years as man’s first form of nature worship. All civilizations looked up to a cosmic force that was responsible for the nature that supported them. The one that was visible and matched in all aspects to what they were seeking was the sun. In reality too the sun has a significant relevance in the lives of all beings. Each day began with the rise of sun and closed at sunset. The sun became a part of our life style. It is therefore only natural that all these civilizations considered Sun as a God. Mention of praying to Sun God can be seen in nearly all historical references. The ancient Egyptian, Chinese, Indonesian and African civilizations have given importance to sun in their mythologies. The solar eclipse was attributed to a dog eating a part of sun in Chinese mythology. A festival of the sun, which sun was observed in Roman culture as ‘Unconquered Sun’ on 25th December became Christ’s birthday later. Christ was also seen as a personification of the sun. The Persians called the sun Mithras and a God. In India, reference to sun can be seen from the most ancient scriptures, the Vedas. The most revered epic hero in India, Rama, is seen as descendant of Sun’s dynasty. Sun temple in Konark is another example that illustrates the significance the people gave to sun.

Yoga, is an ancient practice and as described by Patanjali, a lifestyle that helps the individual to realize union with the Almighty. As a spiritual symbol, it is hence not surprising that sun has a role in Yoga. Salutations to sun have been formalized as a set of yogasana postures, ‘SuryaNamaskara’, in all yoga schools. Therefore, the Surya Namaskara has both ritualistic and spiritual connotations. The postures that comprise the steps of Surya Namaskara are chosen from the yogasanas that confer physical and mental health benefits.

* Next issue will focus on “ Origins of Suryanamaskara”.

Research Activities at Advanced Centre for Yoga, NIMHANS

Research Work presented at 11th Joint Annual Conference of Indian Epilepsy Asso & Society, Indore, 5-11th Feb, 2010

KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) ABOUT YOGA AMONG PATIENTS WITH EPILEPSY - A SURVEY

NAVEEN.G.H*, SINHA.S, VARAMBALLY.S, RASHMI.A, TALY.AB, GIRISH.N, GANGADHAR.B.N.

Background: Benefit of yoga in epilepsy is still emerging. There is no data available about the knowledge, attitude and practice (KAP) of yoga among epilepsy patients.

Objective: This study was designed to explore the KAP about yoga among people living with epilepsy (PLWE).

Method: Three hundred PLWE prospectively recruited from the neurology out-patient services at NIMHANS, Bangalore were administered a pre-designed questionnaire.

Results: The mean age was 31.61 ± 12.38 years (M:F= 173:127). The duration of epilepsy ranged from 10 months to 9 years. About 70% were on regular anti-convulsants and half on monotherapy. Only 5% of subjects had practiced yoga regularly. About 43% said that they didn't know about the usefulness of yoga in epilepsy, however 31% believed that yoga might have an adjunctive role; while 3.3% felt that yoga was not useful. 54.7% showed willingness to practice yoga. 41.3% preferred to practice at home while 23.3% preferred a yoga centre. Further analysis revealed that more men were willing to practice yoga than women subjects. Urban patients believed that yoga could help in reducing dosage of anti-convulsants. Patients on regular medication wanted to practice yoga for longer duration, while those experiencing side-effects were willing to practice yoga daily. Patients with higher financial burden had never practiced yoga.

Conclusion: Knowledge & awareness about yoga among PLWE in this study was poor. However, majority were willing to practice yoga if offered. Scientific studies about the role of yoga as an add-on treatment in epilepsy are required, which then could be communicated to the public.

Ongoing Research Projects

Efficacy of Yoga in Attention Deficit/ Hyperactivity Disorder (ADHD): An open trial

Status: Nine patients have been recruited for the study. Requisition for the extension of the study is requested from Institutional Ethics committee (IEC). Preliminary observations are currently analyzed for publication.

Effect of Yoga Therapy on neuroplasticity and cognitive functions of patients with depression

Status: Two hundred patients have been screened. Fifty three patients have been recruited for the study. The data from the pilot study is being currently analyzed for publication.

Yoga therapy for Mild Cognitive Impairment—fMRI and biochemical correlates

Status: Ten subjects have been randomized into the study. Subjects are being invited to the participate in the study through senior citizen forums, elderly homes and paper advertisements.

Adjuvant yoga therapy for late onset depression: fMRI and biochemical correlates

Status: Five patients have been recruited for the study. Subjects are screened through OPD services and Geriatric clinic, NIMHANS

Effects of Yoga Therapy on Heart Rate Variability in Anxiety Disorder Patients: An Open Trial

Status: Seven patients have been screened. Five subjects have consented and have been recruited for the study.

Publications/ Presentations:

- **“ Barriers to Yoga Therapy as an add on treatment for Schizophrenia”**
S.Baspure, A Jagannathan, S.Kumar, S. Varambally, J.Thirthalli, HR Nagendra, G.Venkatasubramanian,
DK Subbakrishna, D Muralidhar, BN Gangadhar
**# Poster Presented at World Congress of World Association for Psychosocial Rehabilitation
Nov 12—15, 2009 held at NIMHANS, Bangalore.**
- **“ Feasibility and effectiveness of yoga as an add-on treatment in waitlisted schizophrenia patients”**
Meghana D, J.Thirthalli, BN Gangadhar
**# 2 Best Poster Award at 18th International Conference on Frontiers in Yoga Research and Applications,
December 19-22, 2009 held at Prashanti Kutiram, SVYASA, Bangalore, INDIA**

Responses to *Samatvam* :

“Dear Dr Gangadhar,

Congratulations on launching of an advanced center for YOGA research at NIMHANS. The newsletter is also very informative. Wish you all the best., Regards”

(Dr. Bhushan Patwardhan, Professor & Director, Interdisciplinary School of Health Sciences, University of Pune, INDIA)

“Dear Dr Gangadhar,

I was very pleased to see your issue of the Newsletter and to know that the advanced Centre that we had visualized way back in 2007-08 is a reality and is well established now. I would like to congratulate you and Dr Basavaraddi for working on the project relentlessly and bringing it to fruition. We need more collaborated ventures between Centres of Excellence between the modern and the ancient Sciences. Regards,

(Anita Das I.A.S (Rtd), Secretary to Govt of India (Aug 2006 – Oct 2008), Ministry of Health & Family Welfare



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