Modern and Ancient Views on the Value of Meditation in promoting Health, Growth and Balance in Life, with an Introduction to Samarpan Meditation.

Topic Presented on September 1st 2014 at G.C.G.I. Conference, Oxford

Shirish Nathwani M.B.Ch.B. (Glasgow) F.R.C.S. (Edinburgh) L.M.C.C. (Canada)

The state of our health and well-being is highly influenced by the nature and complexity of our thoughts and thinking. Positivity or negativity, compassion or hatred in thinking and the consequent thoughts that we harbor, arise largely from our exposure to various life experiences. The feelings that arise from each of those thoughts create our attitude and when this is expressed repeatedly, form our habits which in turn become our personality. Experiments are now proving that we are largely programmed by our personality traits or mindset which can be computed to predict our behavior[1] and it seems that even as a human being, we have become servants of our unconscious habits and attitude. What we say and express comes from our defenses, fears, conclusions, and attempts to survive. In other words, in spite of our great human potential, unaware we permit the formation of a character that determines our entire performance in life.

Having gone through all kinds of stressful challenges, while becoming adults, we have lost our child-like purity, spontaneity and the joy of living in the moment. Unfortunately however, growing up today, our children too are not much free from 'toxic stress', as shown in the landmark research paper of Feb. 2013 Journal of the American Academy of Pediatrics[2].

Mounting thought pollution and lack of control over the mind, has always been the root cause of all problems in society. Purification of the mind has been valued by all religious and spiritual traditions from time immemorial. They all emphasis child like purity of the mind as a prerequisite to real progress and have advocated various methods such as prayers, scriptural studies, reciting of holy names and the selfless care of the sick, the poor and the unwanted. Meditation is often said to be one royal path to mental clarity and purity.

This presentation is an attempt to briefly examine the basic understanding to date on meditation and its benefit from the perspective of modern medical and social science researchers and from the original treatises of such ancient sages, whose work on meditation was thorough and fortunately still well preserved in its originality[3]. The aim here is to see how the practice of meditation can help us live a life of value and joy. There is an 800 year old simple technique of meditation called 'Samarpan Meditation'. This has been previously preserved by a guru to a disciple in succession so that it could be freely available now to all; this is also presented here so as to understand the principles involved in experiencing the state of 'thoughtlessness'[4].

Meditation involves understanding of the self and therefore a study of it has to evaluate both objective findings and subjective experiences. It entails the researchers' mind to be open to hypothesis of a different paradigm with logically explainable consequent findings. Peaceful and pleasant experiences are well documented and easily experienced by those new to meditation. There are now several studies and publication in prestigious scientific journals demonstrating the psycho-physiological benefits on subjects meditating compared to the control groups.

First, there are some misconceptions about Meditation that need to be addressed. Meditation practice has no pre-requisites. Even very active minds can be calmed, provided the instructions given

by the specified method are followed. We are meant to approach it just as we are and simply add meditation to our routine without having to give up anything whatsoever. It is freely available to anyone wishing to participate regardless of a particular life-style, age, culture or religion. It does not mandate us to sit in a specific yogic posture. It is meant to bring clarity and joy in everyday life and not an escape from life into isolation towards a mountain or a forest. In fact it is seems that not introducing meditation in our life may deprive us from coming to experience our real self.

Regular practice brings sharper objectivity in our life, helping us to discern the fleeting nature of difficult situations encountered and to cope with them calmly and appropriately. A balanced and meaningful life, free from bitterness, regrets and anxiety, is widely noted to slowly emerge.

Meditation thus is not just reflective reasoning, contemplation or intense concentration. It is even more than just withdrawal of the mind to rest and rejuvenate or live in the present moment. It is a state of 'letting go' of all thoughts towards an appropriate target such as the breath, the heart, the crown of the head, a sound, an image, nature (the sun, fire or ocean) or simply be in mindfulness. Identification with the object selected is said to phase out all unnecessary thoughts gracefully and effortlessly leaving the subject in the silence of thoughtless. This 'experience' is sometimes described as being 'peaceful' or 'compassionate', but is very often difficult to verbalize.

Even though medical and social studies on meditation have proved difficult to standardize, quantify and be always objectively authenticated[5], there is mounting evidence for the benefits of meditation. An increasing number of investigations on meditation, using various kinds of sophisticated technology with the availability of many long term meditating test subjects, are giving us a better understanding of the overall effects of meditation. These studies have revealed benefits in various physical and mental disorders and in the performance of the subjects academically and in areas of arts and sports.

Investigations using MRIs, single photon (SPECT) and positron emission tomography (PET), electro and magneto-encephalography along with biochemical and genetic investigations demonstrate nothing but positive outcomes. Enhanced activities and even some structural changes in areas of the brain concerned with learning, memory, self-awareness, compassion, introspection, planning and decision making ate noted. [6-7]. Activity expressed by the so called 'primitive or limbic brain', specially the amygdale where emotional reactions and fear memories are stored, is observed ti get subdued with regular meditation. Shifting such activities to the brain areas involved with decision making and awareness, appear to translate into a behavior that is thoughtful and nonreactive[8].

Studies in cellular genetics, looking at the end plates protecting the chromosomes (telomeres) which are said to be markers of improved longevity, have noted a better preservation of these in meditating subjects, who have also demonstrated higher levels of telomerase enzyme, active in repairing the withered telomeres.[9]

Stress related cortisol and adrenaline levels in the blood are noted to get reduced while mood elevators like dopamine and serotonin levels improve with meditation.[10-10a] Clinical benefits of the practice of meditation are well documented in such diverse conditions as high blood pressure,[11] heart irregularities,[12] asthma,[13] diabetes,[14] psoriasis,[15] migraine[16] anxiety[17], depression[18], obsessive behavior[19], neuro degenerative disorders (including Alzheimer's)[20], attention deficit disorders[21], post traumatic stress disorders[22] and some types of arthritis[23]. Associated with this are the improved corresponding cellular and biochemical markers as well as immune[24], anti-inflammatory[25] and neuro-endocrine functions[26].

The benefits observed in correcting learning disabilities have already led to the implementation of meditation in some schools. Meditation workshops for people recovering from various addictions are increasingly being organized[26]. Decline in the re-incarceration rate among prisoners exposed to daily meditation sessions is being repeatedly demonstrated[27]. Several social studies have come out to also demonstrate a drop in the rate of crime in some cities, which were simply exposed to the effects of a critical number of meditators in their vicinity. This effect of meditation has been experimented in war zones by organized teams of meditators with significant beneficial results. The critical number of meditators needed is said to be 1% of the affected population (Maharishi Effect), making this perhaps a limiting factor presently in heavily populated areas[28].

Improvement in sensory acuity, perceptual style and cognitive function, indicating stabilization of aspects of attention and awareness along with better EEG coherence have been noted during studies on advanced Tibetan and Vedic meditators[29]. Studies on advanced Buddhist monks at Wisconsin under R.J. Davidson and others have shown habitual diminished activity in the anxiety and fear related areas of the brain and enhanced activities in the most recently evolved executive part of the frontal brain[30].

Modern medical paradigm fails to explain how meditation is proving to be so beneficial in such a diverse group of disorders. Various explanations are being suggested. The simplest of them attributes this to a 'connection with Nature' with the meditators temporarily losing their individuality during deep meditation to benefit from nature's balancing property of homeodynamics.[31] A team from Harvard and Justus Liebig Universities suggest that the benefits are secondary to the development of a state of focused steadfastness, emotional calmness, improved body awareness and a perspective on the self that is observed even with six weeks of meditation[32]. Six other possible mechanism of actions based on neurobiological findings in the known activities of the various nuclei of the brain have also been presented[33].

Modern literature refers to a wondering state of mind, as the default-mode network. A simple spinal reflex arc and our emotional 'reactions' to stress are similar such modes in the nervous system. They come into play to a degree, in ways unique to an individual, also by default and often escape one's awareness. Replacement of the wondering state of mind into one of coherence is observed in long term meditators. Thoughtful and calm response, in the face of even provocative stimuli, is also noted to improve with meditation, possibly related to diminished activity in the emotionally dominated similar 'default' mode.

Somewhat thorough work on meditation is found in the writings of some Eastern authorities such as sage Patanjali[3] of the second century B.C. But in order to grasp their vision of the human physiology and psyche we need to put aside, for the time being, all of our previous concepts about human physiology. Both the theories and the experience of Eastern seers have shown that the human body is a projection of consciousness [34] and the brain can transcend the boundaries of logic and reason, and experience the commonly unrecognized higher states of consciousness[35]. They emphatically declare that our essential nature in reality is not the gross body and mind but a subtle Life Force ('Prana ' or 'Chi ') of Universal Consciousness. It is the flow of this force along well defined channels (meridians) that maintains normal physiology. The three major channels alongside the spine are named 'ida', (the lunar feminine 'yin'), 'pingala', (the solar masculine 'yang') and 'sushumna', the central channel, having seven main energy centers called the 'chakras' (vortexes of energy) located along its path. According to the Tibetan lamas, the difference between youth and old age is the 'spin rate' of the chakras[9]. Pujya Baba Swami, the Guru who has brought Samarpan Meditation in society, states that mankind may be somewhat divided into two categories according to their personality based on the predominance of one or other of the above described left lunar channel and the right solar channel. It is aberration in one or more of the 'chakras' that is said to prevent a smooth flow of energy. A balance

flow of energy along a median or central channel brings balance. This in turn influences, if not determines the physical and mental health and wellness of an individual. The yogic tradition also talks of 'Kundalini', a powerful life force that descended in us when we were a fetus barely three months in the mother's womb, from the crown of the head to settle at the base of the spine. It remains dormant in a triangular area around the sacrum throughout life in most people, unless awakened. The fourfold concrete benefit of awakening the 'Kundalini' is that one naturally comes to a) do that which is proper and avoids that which is not, b) drop all negativity and takes on a positive attitude, c) becomes well focused and d) gains superior power of intent (chitta). However, all these are side effects of meditation and we are advised to come to meditation for nothing less than contentment or fulfillment rather than seeking any external gain, lest having gained such benefits, we give up the practice of meditation and miss out on much more. The ascent of this life force, flowing smoothly through the chakras along the median channel to the crown of the head, is said to result in heightened awareness.

According to the preliminary approach or technique used, the various methods of meditation can be divided into three main groups, namely:

1) *Concentration or focus based*. The mind is trained from to pay attention, instead of digressing here and there from internal or external stimuli.

2) *Receptive, open monitoring or mindfulness based*. The ability to focus is accompanied by an openness to expand the conscious field through the depth of oneself.

3) *Mantra with a guru-guided transcendence*. This involves becoming a pure witness to complete 'letting go' of our individuality to the guru element. A living Guru's guidance perfects this process.

All methods of meditation promote mental calmness and clarity along with a variety of health benefits. So far however, no comparative studies are available to show the difference(s) amongst them. Most of the research so far is done on Transcendental meditation and more recently on Mindfulness based meditation.

For some critics, contemplation and meditation are 'lapses into inactivity and inertia', whereas in practice promoting self-empowerment and deliberation, leads to efficiency and success in life, for the regular meditators. It is obvious that to perform any good work, we ourselves have to firstly establish goodness, joy and peace within ourselves. The condition of an excessive serotonin release found in those who try unguided, non-meditative approached to awakening the Kundalini is also wrongly attributed as a rare side effect of meditation, whereas no negative side effects have been cited to date with any of these meditation techniques.

The specific practice described in this paper comes under the third group. Called 'Samarpan Meditation', this 800 year old system, has been preserved by the tradition of its passage from one enlightened guru to a suitable disciple, who in turn, would have later passed it on to another qualified disciple. In just the past twenty years or so this has become freely available, by the grace of a living master. The word 'Samarpan' means 'to make wholesome offerings', a 'letting go' of one's sense of individuality or 'I sense'. This 'I sense', called 'Ahaṃkāra' in Sanskrit, is somewhat similar to 'ego' in modern psychology.

Along with the 'letting go' of one's individuality, goes one's bitterness and guilt of the past and fears or anxiety for the future. One then slowly comes to enjoy the thought-free present moment.

Samarpan Meditation (S.M.) uses three unique tools to bring even a turbulent mind to a peaceful state, in often less than six weeks of uninterrupted daily practice. As one progresses, these tools drop off effortlessly, having served their purpose. However, they need to be understood and used with

reverence. The tools are a lighted candle, a mantra and the guidance of the guru-energies. Apart from the 'letting go' or 'Samarpan', effort has no role here. There is no achieving or doing as such in meditation, for any action involves the 'I' and 'me' sense or the 'ego' which must go, in order to merge with Universal Consciousness in thoughtlessness.

As in most other methods, here too, one sits comfortably on a mat, keeping the back straight, or in a chair with the feet grounded. Having the arms resting on the thighs, palms facing up, the mind's attention is brought to the crown of the head. In Samarpan Meditation, while getting ready to chant the Mantra, a candle is lit in front of the guru-element image or alternatively, one may simply visualize doing so, over the crown of one's head. This facilitates 'offering' or 'letting go' (Samarpan) of one's entire past into the guru-element or the flame, to 'melt' therein. Entering the silence of the mind, right from the start, becomes easier by the grace of a third tool, the 'Mantra', a set of sound vibrations that resonate with the specific 'chakras' to clear them stepwise of their aberrations. The 'Mantra' comes vibrant and with it, the life energy of many sages over the past 800 yrs. What makes this same Mantra applicable to everyone is the presence of the seven major 'chakras' in every human being and the mantra's powerful resonating energy's influence thereupon. The effect comes from the chant's vibration while knowing its word to word meaning is not important.

Meditation begins by chanting the mantra thrice in a special intonation for the first five minutes or less, followed by either complete silence or select background music. Placing the mind's attention on the crown of the head, surrendering of all thoughts is facilitated by the nature of the mantra and the energy or grace of an enlightened living guide or Guru. The actual mantra used and the way to chant it is simple and is usually learnt easily by attending a free brief workshop. Meditating in a group is said to be even more effective.

The Soulful inner experience, once 'experienced', becomes our proof and truth of this living knowledge. With daily practice for half an hour, at any regular time between 4.00 am and 10 pm, we begin to experience the child like joy, energy and spontaneity in daily life. With improved awareness, minimized personal desires and attachments, we progress to be free of any conditioned behavior and become our own perfect guide (guru) to lives in society while keeping the welfare of all in mind.

References:

1) Professor of Physics Albert-László Barabási's findings are published in the current issue of Science magazine http://phys.org/news186174216.html

2) PEDIATRICS Vol. 131 No.2 Feb 1,2013 pp.319-327 S.319-327 (doi: 10.1542/peds.2012-0469 The Science of Early Life Toxic Stress for Pediatric Practice and Advocacy.

3) YOGA SUTRAS OF PATANJALI with commentary by Vyasa by Bengali Baba ISBN: 978-81-208-0154-4.

4) SAMARPAN YOG OF THE HIMALAYAS Vol. 1-5 ISBN: 978-81-907230-9-1 http://samarpanmeditation.org

5) Clinical trials of meditation practices in health care: characteristics and quality. Ospina MB[1], Bond K, Karkhaneh M, Buscemi N, Dryden DM, Barnes V, Carlson LE, Dusek JA, Shannahoff-Khalsa D

6) Meditation experience is associated with increased cortical thickness Sara W. Lazar, Catherine E. Kerr, Rachel H. Wasserman, Jeremy R. Gray, Douglas N. Greve, Michael T. Treadway, Metta McGarvey, Brian T. Quinn, Jeffery A. Dusek, Herbert Benson, Scott L. Rauch, Christopher I. Moore, and Bruce Fischl

7) Mindfulness practice leads to increases in regional brain gray matter density Britta K. Hölzel, James Carmody,c Mark Vangel,a Christina Congleton,a Sita M. Yerramsetti,a Tim Gard,a,b and Sara W. Lazara

8) Nathaniel Ricard, Antonie Lutz and Richard Davidson in Scientific American Nov. 2014.31. doi: 10.1093/ecam/nel040

9) Can meditation slow the rate of cellular aging? Cognitive stress, mindfulness, and telomeres

Elissa Epel, PhD. Jennifer Daubenmier, Ph.D., Judith T. Moskowitz, Ph.D., Susan Folkman, PhD., and Elizabeth Blackburn, PhD.

10) The neural basis of the complex mental task of meditation: neurotransmitter and neurochemical considerations A. B. Newberg,1 J. Iversen2 1 University of Pennsylvania, Philadelphia, PA, USA; 2 Stanford University, Stanford, CA 94309, USA 11) Front Psychol. 2014 Mar 18;5:215. doi: 10.3389/fpsyg.2014.00215. eCollection 2014. The neuro-scientific study of spiritual practices. Newberg AB

11) Brook RD et al., Beyond Medications and Diet: Alternative Approaches to Lowering Blood Pressure. A Scientific Statement from the American Heart Association. Hypertension, 61:00, April 2013 & Stress Reduction in the Secondary Prevention of Cardiovascular Disease Randomized, Controlled Trial of Transcendental Meditation and Health Education in Blacks Robert H. Schneider, MD, FACC, Clarence E. Grim, MD, Maxwell V. Rainforth, PhD, Theodore Kotchen, MD, Sanford I. Nidich, EdD, Carolyn Gaylord-King, PhD, John W. Salerno, PhD,Jane Morley Kotchen, MD, MPH and Charles N. Alexander, PhD.

12) Heart rate dynamics during three forms of meditation C.-K. Penga,, Isaac C. Henrya , Joseph E. Mietus a , Jeffrey M. Hausdorff a , Gurucharan Khalsaa , Herbert Bensonb,c, Ary L. Goldbergera

13) http://www.mayoclinic.org/tests-procedures/meditation/in-depth/meditation/art-20045858

14 a&b) MINDFULNESS-BASED STRESS REDUCTION IS ASSOCIATED WITH IMPROVED GLYCEMIC CONTROL IN TYPE 2 DIABETES MELLITUS: A PILOT STUDY Steven Rosenzweig, MD; Diane K. Reibel, PhD; Jeffrey M. Greeson, PhD; Joel S. Edman, DSc;Samar A. Jasser, MD; Kathy D. McMearty, BA; Barry J. Goldstein, MD, PhD & (b) Comparative Effectiveness of a Mindful Eating Intervention to a Diabetes Self-Management Intervention among Adults with Type 2 Diabetes: A Pilot Study Carla K. Miller, PhD, RD, Associate Professor,* Jean L. Kristeller, PhD, Professor Emeritus, Senior Research Scientist, Amy Headings, PhD, RD, Research Associate, Haikady Nagaraja, PhD, Professor, and W. Fred Miser, MD, MA, Professor

15) Psychosom Med. 1998 Sep-Oct;60(5):625-32. Influence of a mindfulness meditation-based stress reduction intervention on rates of skin clearing in patients with moderate to severe psoriasis undergoing phototherapy (UVB) and photochemotherapy (PUVA). Kabat-Zinn J, Wheeler E, Light T, Skillings A, Scharf MJ, Cropley TG, Hosmer D, Bernhard JD.

16) Migraine Insomnia , Posted by Kerrie Smyres—January 21st, 2014 see www.migraine.com

17) Effectiveness of a meditation-based stress reduction program in the treatment of anxiety disorders

Am J Psychiatry 1992;149:936-943 ALSO Interventions to reduce the consequences of stress in physicians: a review and meta-analysis. Regehr C, Glancy D, Pitts A, Leblanc VR. J Nerv Ment Dis. 2014 May;202(5):353-9. doi: 10.

18) The Effect of Mindfulness-Based Therapy on Anxiety and Depression: A Meta-Analytic Review Stefan G. Hofmann, Alice T. Sawyer, Ashley A. Witt, and Diana Oh

19) Randomized controlled trial of yogic meditation techniques for patients with obsessive-compulsive disorder. Shannahoff-Khalsa DS, Ray LE, Levine S, Gallen CC, Schwartz BJ, Sidorowich JJ The Research Group for Mind-Body Dynamics, the Institute for Nonlinear Science, University of California, San Diego, La Jolla, CA, USA.

20) Meditation and neurodegenerative diseases.Newberg AB, Serruya M, Wintering N, Moss AS, Reibel D, Monti DA. Ann N Y Acad Sci. 2014 Jan;1307:89-103. doi: 10.1111/nyas.12348.
The potential effects of meditation on age-related cognitive decline: a systematic review. Gard T[1], Hölzel BK, Lazar SW.
Also) Meditative analgesia: the current state of the field. Grant JA.
http://www.ncbi.nlm.nih.gov/pubmed/24673150#

21) Meditation-based training: a possible intervention for attention deficit hyperactivity disorder. Baijal S, Gupta R

22) Treatment of PTSD with transcendental meditation in active duty military personnel.Barnes VA, Rigg JL, Williams JJ.Mil Med. 2013 Jul;178(7):e836-40. doi: 10.7205/MILMED-D-12-00426
Preliminary study looks promising.

23) Effect of Mindfulness-Based Stress Reduction in Rheumatoid Arthritis Patients ELIZABETH K. PRADHAN,et all Arthritis & Rheumatism (Arthritis Care & Research) Vol. 57, No. 7, October 15, 2007, pp 1134 –1142

24) Alterations in Brain and Immune Function Produced by Mindfulness Meditation RICHARD J. DAVIDSON, PHD, JON KABAT-ZINN, PHD, JESSICA SCHUMACHER, MS, MELISSA ROSENKRANZ, BA, DANIEL MULLER, MD, PHD, SAKI F. SANTORELLI, EDD, FERRIS URBANOWSKI, MA, ANNE HARRINGTON, PHD, KATHERINE BONUS, MA, AND JOHN F. SHERIDAN, PHD

25) The inflammatory reflex (Neurological Pathway) Kevin J. Tracey Laboratory of Biomedical Science, North Shore-LIJ Research Institute, 350 Community Drive, Manhasset, New York 11030, USA (e-mail: kjtracey@sprynet.com) ALSO Rapid changes in histone deacetylases and inflammatory gene expression in expert meditators Perla Kaliman a, *, Marı´a Jesu´s A´lvarez-Lo´pez b , Marta Cosı´n-Toma´s b , Melissa A. Rosenkranz c,d , Antoine Lutz c,d,e , Richard J. Davidson c,d,f,

26) Twice the effectiveness of conventional approaches for reducing alcoholism and substance abuse Alcoholism Treatment Quarterly 11: 13-87, 1994

Smoking cessation National Center for Complementary & Alternative Medicine (NCCAM)) Carim-Todd L, Mitchell SH, Oken Drug and Alcohol Dependence. 2013;132(3):399–410
A narrative review of yoga and mindfulness as complementary therapies for addiction. Khanna S[1], Greeson JM.

27) Meditation research: the state of the art in correctional settings. Himelstein S. Mar 23, 2010 Meditation research: the state of the art in correctional settings.Himelstein S Benefits of the Transcendental Meditation program for Inmates www.istpp.org/rehabilitation/page_06.html

28) The Transcendental Meditation program and crime rate change in a sample of forty-eight cities. Journal of Crime and Justice, 4, 25–45 (1981).

29) Studies of Advanced Stages of Meditation in the Tibetan Buddhist and Vedic Traditions. I: A Comparison of General Changes Alex Hankey

30) Buddha's Brain: Neuroplasticity and Meditation Richard J. Davidson, Director and Antoine Lutz,

31) Samarpan Yog of the Himalayas 1-5 ISBN: 978-81-907230-9-1 http://samarpanmeditation.org

32) [Review of the effects of mindfulness meditation on mental and physical health and its mechanisms of action]. [Article in French] Ngô TL.

33) How Does Mindfulness Meditation Work? Proposing Mechanisms of Action from a Conceptual and Neural Perspective. (Perspectives on Psychological Science 6(6) 537–559 © The Author(s) 2011) http://ladharma.org/pdfs/lad-178.pdf

34) http://www.wakingtimes.com/2014/04/16/proof-human-body-projection-consciousness/

35) Psychiatry Clin Neurosci. 1995 May; 49(2):107-10. The fourth state of consciousness: the Thuriya Avastha. Ramamurthi B

.