

Original article

Exploring the Effects of Sahaja Yoga on Quality of Life and Perceived Stress Scale

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Abstract:

Background: The present study investigates and compares Health Related Quality of life and Perceived Stress levels of Sahaja Yoga meditators with healthy non meditating control subjects. Stress is an increasingly common and widely acknowledged phenomenon, known to affect the quality of life. The degree to which one appraises situations in one's life as stressful is measured by Perceived Stress Scale.

Study methodology: A Randomized prospective controlled study enrolled 30 subjects (yoga group) and 30 age, sex matched (non-yoga control group), conducted in the Physiology department of MGM Medical College & hospital over a period of one year. Self reported questionnaire SF 36 used for assessing the health-related quality of life, revealed better tolerance to bodily pain, lesser role limitations due to physical health problems, better emotional well-being, more energy/ lesser fatigue and better general health perceptions in yoga group as compared to non-yoga group.

Results: Perceived stress evaluated with PSS -10 questionnaires revealed the mean scores in yoga group 15.6 compared to 16.4 in the non-yoga group. The paired T Test for PSS and comparison between yoga and non-yoga showed $p = 0.035$ (statistically significant).

Conclusion: Results from this study suggests practice of Sahaja yoga meditation improves quality of life and psychological health.

Keywords: Health related quality of life, Non-yoga, Perceived Stress Scale, Sahaja yoga, SF 36 questionnaire

Introduction:

Overseas studies estimate that up to 40% of patients presenting to general medical practitioners (GPs) are psychologically distressed.^[1] In the US it has been estimated that 50–70% of general practice consultations feature stress related issues. Stress related disorders are becoming the most prevalent reason for worker disability manifesting as absenteeism, workforce turnover, loss of productivity and disability pension costs. The role of stress in the development of psychological disorders, disease and disability is becoming better defined and more widely accepted. For instance, researchers using the Whitehall data found that competitiveness, over commitment and a tense and hostile atmosphere in the workplace coupled with low opportunities for promotion and career development were associated with a doubling in the risk of new coronary heart disease. Seyle also suggested that the most stressful aspects of life is having to live with other people. Research data supports the common sense reasoning that relationships can be a major source of both stress and support.

Health-Related Quality-Of-Life (HrQoL) is a significant public health Issue. Quality of life integrates aspects of physical, psychological, and social health. Patients with chronic diseases often suffer from prolonged physical and psychological distress. Perceived Stress Scale (PSS) is the most widely used scale for assessing stressfulness of events, psychiatric diseases and in stress management programs. Yoga is regarded in the western world as a Holistic approach to life. National Institute of Health has classified Yoga as a form of Complementary and Alternative Medicine (CAM). During the past 50 years, the use of meditation and yoga as an adjunct to conventional medical treatment has increased rapidly in the general population. In 2002, mind-body techniques, including relaxation techniques, meditation, guided imagery, biofeedback and hypnosis, was used by about 17 percent of the adult U.S. population 45 percent of the population used prayer for health reasons. Increased quality of life after Yoga and relaxation treatment in elderly heart failure patients was reported in a pilot study. Better quality of life in advanced

AIDS patients who received a combination of Meta meditation and massage treatment was observed in a factorial randomized trial.^[2] Rigorous clinical research is required to strengthen the current understanding about the effect of yoga and meditation on quality of life.

Recent studies with Sahaja Yoga meditation in the treatment of anxiety, depression^[3] stress,^[4] hypertension, asthma, seizure control and EEG changes in patients of epilepsy^[5] have shown significant results. In a randomized controlled study Sahaja Yoga Meditation has shown to increase Quality of Life and on improving psychological health.

Sahaja Yoga Meditation is a technique that evokes thoughtless awareness on a daily basis, presumably via activation of parasympathetic–limbic pathways (Harrison et al., 2004)^[6]. It helps individual with every background to achieve the state of thoughtless awareness, with mental silence and complete inner peace. It is a simple noncommercial meditative technique practiced for spiritual and mental well-being through awakening and harnessing of one's own dormant energy "Kundalini" located in the sacrum bone. It is hypothesized that actualization of kundalini awakening on limbic system inhibits the posterior hypothalamus, adrenal medulla, decreasing adrenaline and reducing anxiety symptoms. Further the reward-punishment areas are modulated; inhibition of reticular activating system inhibits flow of irrelevant sensory information. Areas producing rage, fear, aggression are inhibited and reward centre in medial fore-brain bundle- stimulated leading to a relaxed blissful state.

Materials and Methods:

A prospective controlled study was conducted in the department of Physiology of MGM Medical College & hospital- a tertiary care teaching hospital over the period June 2015-December 2016. The study group comprised of 30 subjects, randomly selected, long term Sahaja Yoga meditators (from Mumbai and Navi Mumbai, practicing SY for more than 5 years), aged 25-70 years and a control group of 30 subjects, age and sex matched, randomly selected from doctors, nurses, administrative staff, and those who came for pre-employment check-ups without any background of practicing any mind body balancing technique.

At study entry, the questionnaires implemented on both study groups and control group included demographic profile, Short Form 36 and Perceived Stress Scale.

Demographic data of each patient was collected at baseline. The questionnaire was written in English. Each subject's ability to read, write and understand English was ascertained. Voluntary informed consent was taken from each subject. The questionnaire as well as the consent form contained instructions about the voluntary nature of the participation and the right to terminate during the course of study. The study was approved by MGM Institutional Ethics Committee.

Inclusion criteria:

- Men and non-pregnant women age between 25 - 70 years old, who were regularly practicing SY meditation for more than 5 years.(Yoga group).
- They had to be non smokers and non alcoholics.
- Willing and able to give consent, and able to read, write and understand English.

Exclusion criteria:

- Individuals who were unable to understand the questionnaires, co-operate, or return for follow-up.
- Subjects, who smoked cigarettes or tobacco, consumed alcohol or have any major physical or mental illnesses.
- For the (Control Group) those practicing any form of meditation, Tai chi, etc.

The SF 36-Item Health Survey evaluates eight concepts (Domains): Physical Functioning, Bodily Pain, Role Limitations Due To Physical Health Problems, Role Limitations Due To Personal or Emotional Problems, Emotional Well-Being, Social Functioning, Energy/Fatigue, And General Health Perceptions. It Also Includes A Single Item That Provides An Indication Of Perceived Change In Health.

Scoring the SF 36-Item Health Survey is a two-step

Items in the same scale were averaged together to create the 8 scale scores. Table 2 lists the items averaged together to create each scale. Items that were left blank (missing data) were not taken into account when calculating the scale scores. Hence, scale scores represent the average for all items in the scale that the respondent answered.

Results:

Table 1: Descriptive statistics for variables of SF 36yoga and non-yoga

**If p-Value \leq 0.05 then there is significant difference between two variables (S)

	Mean	Mean	SD	SD	p-Value
	Control Group	Sahaja Yoga Group	Control Group	Sahaja Yoga Group	
Physical Functioning	89.5	97.83	19	6.25	0.03 (S)**
Role limitations due to physical health	85	98.33	32.6	6.34	0.04 (S)**
Role limitations due to emotional problems	88.9	94.7	29.5	19.5	0.32 (NS)*
Energy / fatigue	75.3	93	20.9	11.3	0.001 (S)**
Emotional well-being	82.7	96.4	19.3	5.49	0.001 (S)**
Social functioning	89.2	96.7	19.6	10.9	0.07 (NS)*
Pain	83.6	99	23.8	3.05	0.001 (S)**
General health	78.7	93	20.3	9.34	0.001 (S)**

Table 2: Descriptive statistics of perceived stress scale for Sahaja Yoga and Control groups (non-yoga)

	Group	N	Mean	Std Deviation
PSS 1Y	Control	30	1.10	1.13
	Sahaja Yoga	30	0.33	0.66
PSS 2Y	Control	30	0.97	1.13
	Sahaja Yoga	30	0.20	0.55
PSS 3Y	Control	30	1.13	1.11
	Sahaja Yoga	30	0.23	0.50
PSS 4Y	Control	30	3.30	1.12
	Sahaja Yoga	30	3.90	0.31
PSS 5Y	Control	30	2.90	1.16
	Sahaja Yoga	30	3.57	0.90
PSS 6Y	Control	30	0.93	0.98
	Sahaja Yoga	30	0.37	1.03
PSS 7Y	Control	30	3.00	1.20
	Sahaja Yoga	30	3.13	1.46
PSS 8Y	Control	30	2.07	1.26
	Sahaja Yoga	30	3.33	0.71
PSS 9Y	Control	30	1.30	1.18
	Sahaja Yoga	30	0.47	0.68
PSS 10Y	Control	30	0.60	0.97
	Sahaja Yoga	30	0.07	0.37

Table 3: Paired-t- test for PSS of yoga and non – yoga group :

Perceived stress level	Mean	SD
Control Group	16.4	3.5
Sahaja Yoga Group	15.6	2.4
p value = 0.035 (S), Paired T test		

The paired T Test for PSS and comparison between Yoga and Non yoga in all 10 variables in the present study was tested by using correlation analysis by applying Karl Pearson Coefficient of Correlation and the significance tested by using paired T test which shows $p=0.035$ which was significant.

Discussion:

Few studies in the current literature have documented the effect of meditation or yoga on quality of life. Reibel et al compared the change in quality of life before and after a mindfulness meditation program in 136 patients with various health conditions.^[7] The study reported clinically meaningful improvement in quality of life, as defined by a 5 point or greater increase in SF-36 scales, in role-physical, vitality, role-emotional, mental health subscales and mental component summary measure, associated with the meditation program. Since there was no control group, however, it was difficult to know the extent of improvement in quality of life that was directly attributable to the meditation. In a pilot study conducted by Curiati et al^[8] elderly patients with optimally treated congestive heart failure were randomized to receive meditation or not. The meditation technique was a combination of complete yoga breathing, relaxation response and guided image of a healthy heart. Quality of life was measured by the Minnesota Living with Heart Failure Questionnaire. The study reported a higher level of quality of life associated with meditation which was equivalent to the difference achieved between enalapril treatment versus placebo in a previous study. Another factorial randomized trial was conducted to compare the effect of adding Metta (love-kindness) meditation and massage to standard therapy on quality of life among patients with advanced AIDS. The study reported significantly better quality of life.^[9] Among healthy individuals, Oken et al conducted a randomized trial, assigning healthy seniors to one of three groups: Iyengar yoga, aerobic exercise or wait-list control. Quality of life was a secondary outcome in the study. The Iyengar yoga group demonstrated significantly better scores for SF-36 vitality, role-physical, bodily pain, social functioning subscales, and the physical composite summary.^[10]

In another study on Sahaja Yoga Meditation done on diverse group of population comprising of people of various nationalities showed that two weeks of Sahaja Yoga meditation cut down the anxiety and depression in people who had psychological problems. It also showed that participants with normal Psychological health could further improve their Psychological health by practicing Sahaja yoga meditation.^[11] Sahaja Yoga Meditation was also associated with betterment over an extensive spectrum of quality of life.^[12] In our study, among the eight domains assessed by SF 36, the yoga group had better health related quality of life in six out of the eight variables. There is strong evidence that Sahaja yoga group is more effective than Control group to maintain or improve physical functioning, limitations due to physical health, energy / fatigue, emotional well-being, pain and general health. It is deciphered from the p value that there is not much difference in the two groups with respect to limitations due to emotional problems and social functioning. This association was supported by comparing the perceived anxiety in the meditation groups and controls.

The mean scores of perceived stress levels in the yoga group in our study were 15.6 which were lower than 16.4 seen in the non yoga group. The paired T Test for PSS and comparison between Yoga and Non yoga in all 10 variables using paired T test showed $p=0.035$ which was significant (<0.05 considered statistically significant). There is considerable evidence now that meditation can have short- and long-term effects on both function and structural brain plasticity in addition to its already recognized ability to cause relaxation and reduce stress. The Sahaja meditative experience is characterized by a sensation of normal or even heightened alertness in conjunction with a state of complete mental silence. This is associated with a sense of relaxation and positive mood and a feeling of benevolence towards oneself and others. Meditation by the Sahaja yoga technique is, according to tradition, an innately therapeutic process which is beneficial for a number of chronic diseases, mental and physical. Almost as a by-product, ideal mental and physical health become possible as the complexities of the mind are progressively resolved by the mental silence of the trans-thought experience.

Conclusion:

The yoga group maintained a much better health related quality of life assessed by SF 36, in six out of the eight variables as compared to the non-yoga group. The perceived stress levels were lower in the yoga group as compared to the non-yoga group. The paired T Test for PSS and comparison between Yoga and Non yoga in all 10 variables using paired T test showed $p = 0.035$ which was significant (<0.05 statistically significant). This suggests that with regular practice of Sahaja yoga meditation one has better health related quality of life, is better equipped to deal with the psychological stresses of day-to-day life and can overcome the stress related disorders be it physical or psychological.

Study limitations:

The data obtained in this study were cross sectional and thus did not track stress over time or assess how levels of stress vary in the same individuals over a period of time. The study was done with only one meditation technique (Sahaja Yoga) and so there is no scope of comparison with other forms of meditation. The researchers did emphasize strongly the need for honesty and impartiality whilst answering the questions. Though it is reassuring that the overall pattern of results follows those observed in other similar such studies. Follow up research has to be done in order to rule out placebo response and to check the durability of the effects.

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