Does Raja Yoga meditation bring out physiological and psychological general well being among practitioners of it?

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Abstract

Background: Raja Yoga meditation is a simple and scientific technique to elicit physical and mental relaxation response, to change one's attitude and transform life-style. Regular practice of it brings transformation in overall wellbeing of person.
Aim and objective: To study the effect of Raja Yoga meditation on physiological and psychological well being of subjects practicing it.

Methods: We conducted a study among 100 practitioners of Brahmakumaris Raja Yoga meditation of either sex (33 men and 67 women) aged 30 years and above (mean age 52.06 ± 12.76 years). The subjects were divided into short term meditators (meditating for 6 months to 5 years with mean duration 3.37 ± 1.67 years) and long term meditators (meditating for more than 5 years with mean duration 11.19 ± 5.13 years). Physiological variables like heart rate (HR), respiratory rate (RR) per minute, systolic blood pressure (SBP) and diastolic blood pressure (DBP) were recorded before meditation practice and twice during the practice of meditation after every fifteen minutes. Also, detailed history regarding addictions, negative attributes and spiritual practices before and after practicing meditation was inquired as per the predesigned questionnaire. Fasting blood sugar was also estimated by glucometer.

Results: Both short term as well as long term meditators showed a significant declining trend in HR, RR, SBP and DBP 15 minutes as well as 30 minutes after meditation ($P<0.05$). The study subjects particularly long term meditators got rid of addictions (tobacco chewing, smoking, alcohol, non-vegetarian diet) and negative attributes (anger, mental stress, negative/waste thoughts and irritability) after learning and practicing meditation. Subjects also experienced various benefits in the form of mental peace and happiness.

Conclusions: Raja Yoga meditation provides significant improvements in physiological cardio-respiratory functions by tilting of autonomic balance from sympathetic in favour of

parasympathetic and also contributes significantly to the psychological well-being of subjects.

Key words: Meditation, Brahmakumaris Raja Yoga, Physiological variables, mental well-being

Running title: Raj Yoga meditation and general well-being

Introduction

At the end of the twentieth century, stress and strain of day-to-day life have reached its highest peak. Mental tension, emotional ups and down, anger, irritability, fear, nervousness, depressive feelings and other stressful situations have an all-round effect on human beings. Such experiences influence one's mental apparatus, emotional life and physiological systems adversely.[1] Prevention researchers have discovered that human strengths such as courage, optimism, interpersonal skills, faith and hope act as buffers against mental illness. In other words, by minimizing the destructive state of mind and enhancing the constructive states of mind mental well-being may be promoted.[2]

Research has found meditation to produce positive and demonstrable stress reduction effects on brain and immune functions. In recent years, the various health benefits of meditation have become more and more acknowledged by the scientific community as well as the layman.[3-5] While initially, research concentrated more on the physiological benefits of meditation, there have recently been an increasing number of studies on the various psychological benefits, too. Apart from the pioneers of meditation research such as Harvard's Dr. Herbert Benson ("The Relaxation Response") and Jon Kabat-Zinn, there are now scientists such as Richard Davidson and Sara Lazar using the tools of modern brain research to explore the effects of meditation on mind and health.[6-8]

Research on the biological concomitants of meditation practice is sparse and has mostly focused on changes that occur during a period of meditation compared with a resting control condition in a single experimental session. Whereas these studies have been informative, enduring changes produced due to meditation cannot be evaluated by these studies. Moreover, virtually all forms of meditation profess to alter everyday behaviour, effects that are by definition not restricted to the times during which formal meditation itself is practiced. Thus, although it is important to focus on the period of meditation, but the more enduring changes that can be detected in body function in response to specific emotional challenges such as stress.[2]

The principles and practice of Raj Yoga meditation as taught by the Brahmakumaris World Spiritual University are quite different from other techniques of meditation. Raja Yoga meditation is awareness of the metaphysical self and absorption of one's mind in loveful and purposeful consciousness of God and concentration on Him and on His divine attributes. This art and science of meditation which is based on rationality and truth of being and on philosophy and psychology, brings about an inner transformation. It penetrates deeply into the layers of the mind and removes the immoral, the inner vices and thus energizes the soul

and renews it. It leads to self-illumination and to a life-style which gives one satisfaction of leading to a fuller, meaningful and useful life.[9]

Raja Yoga meditation relieves physiological and psychological stress and re-establishes mental harmony when practiced regularly, and is thus a vital adjunct to any programme for maintaining and promoting physical, mental and spiritual health.[10] With this background, the present study was planned with the objective of assessing the impact of Brahmakumaris Raja Yoga meditation on physiological and psychological wellbeing of subjects practicing Raja yoga meditation.

Methods

A cross-sectional study was carried out at Brahmakumaris centre in Nagpur city, India. The study period was from 1st January 2010 to 30th June 2010. The present study was carried out in 100 study subjects (33 men and 67 women) in the age group of 30 years and above (mean age 52.06 ± 12.76 years) visiting the Brahmakumaris centre and practicing Raja Yoga meditation at least for a period of six months. The study was approved by the Institutional Ethics Committee, Directorate of Annamalai University Madurai.

All study subjects aged 30 years and above were interviewed in the morning hours (between 7 am and 8.30 am) after obtaining the informed consent from them and detailed history regarding demographic profile, socio-economic status, presenting complaints, if any, past history, personal history as well as information regarding Raja Yoga meditation practice was obtained. Those subjects practicing Raja Yoga meditation from six months up to five years were classified as short term meditators (STM) (mean duration 3.37 ± 1.67 years) and those practicing Raja Yoga meditation for more than five years were classified as long term meditators (LTM) (mean duration 11.19 ± 5.13 years). During meditation, subjects sit in a comfortable posture with their eyes open, and with gaze fixed on a meaningful symbol (a light). At the same time, they actively think positive thoughts about a universal force pervading all over, as light and peace. The meditators were practicing Raja Yoga meditation for one hour every morning (6 -7 am) at the Brahmakumaris centre. Complete clinical examination, including general and systemic examination was done. Anthropometric measurements (height, weight, waist circumference and hip circumference) were recorded and body mass index (BMI) was calculated. High waist – hip Ratio (WHR) is considered as > 1 for males and > 0.85 for females.[11] Heart rate (HR), respiratory rate (RR), systolic blood pressure (SBP) and diastolic blood pressure (DBP) were recorded before meditation practice. The purpose of experiment was explained to them in order to reduce unnecessary anxiety. Then, the subjects were asked to practice meditation for 30 minutes and again their HR, RR, SBP and DBP were measured twice at 15 minutes interval during the practice of meditation i.e. after 15 and 30 minutes. HR and RR were recorded per minute. Blood pressure was measured by mercury sphygmomanometer in the right arm in sitting position both before and twice during meditation practice. During recording due care was taken so as not to disturb the subjects in their meditation.

Also, history of addictions (tobacco chewing, cigarette smoking and alcohol/drinks and consumption of non-vegetarian diet), negative attributes like anger, mental stress, negative or waste thoughts, and mental well-being before and after learning Raja Yoga meditation as per the predesigned questionnaire was assessed. History of other spiritual practices like visit to

local Brahmakumaris centre, listening daily spiritual discourses (Murli) and involvement in spiritual service was also inquired.

In addition, fasting blood sugar estimation was done using glucometer as per standards recommended by American Diabetes Association (ADA).[12] Because of its simplicity and availability, the ADA report recommends basing the diagnosis of diabetes mellitus (DM) on the fasting plasma glucose. Subject was considered as diabetic if he/she was a known case of DM or if his/her fasting- blood sugar was 120 mg/dl or more.[13]

Statistical analysis

The differences in pre- and post-meditation learning among short term and long term meditators were used for the analysis. Percentages, mean and standard deviation were calculated. Student's independent sample t-test, Yates corrected Chi square test and Fischer exact tests were done using statistical software Epi Info version 6. Statistical significance was assessed at a type I error rate of 0.05.

Results

The mean age of the study subjects in the two groups i.e. short term meditators and long term meditators was 49.37 ± 11.95 years and 53.05 ± 12.98 years, respectively. The study subjects in the two groups did not show statistically significant difference in various demographic and other characteristics such as age, sex, marital status, type of family, educational status, physical exercise, body mass index (BMI), waist-hip ratio (WHR) and fasting blood sugar level as shown in Table 1.

The changes in physiological variables among short- term and long term meditators both before meditation and during the practice of meditation at an interval of fifteen minutes are shown in Table 2a and 2b. Mean heart rate, respiratory rate, systolic blood pressure and diastolic blood pressure were found to be lower during post-meditation period (after 30 minutes) as compared to during meditation period (after 15 minutes) and pre-meditation period i.e. a declining trend was observed for all the physiological variables from before to after meditation period. However statistical test i.e. analysis of variance (ANOVA) applied for all the physiological variables was found to be statistically significant only for respiratory rate ($P<0.05$) and not statistically significant for other variables ($P>0.05$). Similar observations in physiological variables i.e. a declining trend has been reported among long-term meditators before meditation and twice during the period of meditation recorded at an interval of fifteen minutes. Statistical test (ANOVA) applied was found to be statistically significant for diastolic blood pressure ($P<0.05$) and statistically highly significant for other physiological variables such as heart rate, respiratory rate and systolic blood pressure ($P<0.01$).

As far as habits of the study subjects' pre and post-meditation learning are concerned, it was observed that most of the study subjects from long term meditators had the habit of tobacco chewing, cigarette smoking, consumption of alcoholic drinks, non-vegetarian diet and multiple habits before learning meditation as compared to short term meditators. Also, after learning meditation, 2 (100%) subjects from short term meditators continued with the habits of tobacco chewing, alcohol and multiple habits and all subjects from long term meditators

got rid of habits after learning meditation. However, the difference between short term and long term meditators was found to be statistically significant only for tobacco chewing ($P<0.05$) (Table 3a). When negative attributes like anger, mental stress, negative /waste thoughts and irritability pre and post-meditation learning amongst study subjects were considered, it was noted that before learning meditation, more number of subjects from long term meditators had negative attributes as compared to short term meditators. Whereas in post-meditation period, more number of long term meditators overcame the negative attributes as evident from the observation. Although the statistical difference in pre and post-meditation learning period among long term and short term meditators was not found to be statistically significant ($P>0.05$) as shown in Table 3b.

Subjects practicing Raja Yoga meditation used to perform certain spiritual practices like daily visit to Brahmakumaris centre, practicing Raja Yoga meditation, listening spiritual discourses and performing spiritual service. Long term meditators were found to be more regular in spiritual practices. When short term and long term meditators were compared, the difference was found to be statistically significant for all spiritual practices ($P<0.05$) except for spiritual service ($P>0.05$). The findings have been summarized in Table 4.

Most of the subjects practicing Raja Yoga meditation experienced various benefits like stoppage of addictions, experiencing mental peace and happiness, overcoming vices, improved health, increased tolerance power, freedom from fear, cessation of crying over trivial issues, increase judgment power, financial benefit and freedom from depression. The findings are shown in Table 5. It was observed that long term meditators experienced more of these benefits. A statistical significant difference was found between long term and short term meditators for various benefits like addictions, experiencing mental peace and happiness. One study subject from long term meditators who had severe depression (suffering from gross psychosis) before learning meditation got rid of that after learning meditation in just one year of meditation practice.

Discussion

The study emphasizes the declining effects of Brahmakumaris Raja Yoga meditation on physiological variables like heart rate, respiratory rate, systolic and diastolic blood pressure during meditation as compared to the pre-meditation period. Decrease in the physiological variables indicates a shift in the balancing components of autonomic nervous system towards the parasympathetic state.

Sympathetic arousal is expected to be reduced during Raja Yoga practice. Hence the load on the heart due to sympathetic arousal is also minimized resulting in an improvement in cardiovascular parameters. Similar findings as in our study were observed in 23 subjects by Gupta S et al,[14] attributing decline in pulse rate, respiratory rate and blood pressure to the reduction in the level of sympathetic arousal. Meditation is believed to gradually reduce the sympathetic dominance resulting in better balance between sympathetic and parasympathetic. This should bring about a hypometabolic state resulting in decreased heart rate and blood pressure.[15] The reduction of lactic acid brought about by meditation is supposed to be a sign of tension free and peaceful state of mind.[16]

Vyas R et al[15] observed that diastolic blood pressure was significantly lower in both short term and long term meditators of Raja Yoga meditation as compared to non-meditators. Lipid

profile showed a significant lowering of serum cholesterol in short and long term meditators as compared to non-meditators. However contradictory results have been observed by Telles S et al[17], who conducted study in 18 males with 5-25 years of meditation (mean 10.1 ± 6.2) showing that heart rate during the meditation period was increased when compared to the baseline period, as well as compared to the value during the non-meditation period of control sessions. No significant change was observed during meditation, for the group as a whole, in palmar GSR, finger plethysmogram amplitude and respiratory rate. Hence, a single model of sympathetic activation or overall relaxation may be inadequate to describe the physiological effects of a meditation technique.

Findings of our study suggest that dual model exist i.e. quietening of sympathetic system and activation of parasympathetic system during the meditation practice as indicated by the shift from sympathetic to parasympathetic resulting in decrease in physiological variables. Thus, meditation by modifying the state of anxiety reduces the stress induced sympathetic over activity resulting in a lowering of respiratory and cardiovascular variables. It relaxes the subject and thereby decreases arterial tone and peripheral resistance. This may be another reason for a fall in blood pressure.[16] This implies that Raja Yoga meditation confers significant benefits in respiratory functions, cardiovascular parameters which continued to improve further with long-term meditation which justifies the fact that long term meditators have greater parasympathetic control.

Parasympathetic cholinergic impulse response through vagus nerve on SA node causes a decrease in heart rate. Whereas reduced sympathetic output decreases nor-adrenaline impulses on beta 1, beta 2 receptors of SA node leading to further fall in heart rate. Parasympathetic cholinergic dilatation of arterioles decreases peripheral resistance leading to reduction of diastolic blood pressure. Decreased sympathetic activity reduces vasoconstrictor effect through alpha receptors leading to fall in diastolic blood pressure. Parasympathetic cholinergic response resulting in negative inotropic action reduces contractility of heart, decreased cardiac output and thus resulting in decreased systolic blood pressure. Reduced sympathetic response adds to decreased contractility. The decreased respiratory rate following meditation appears to be due to progressive increase in vagal impulse to respiratory centre.[18]

In addition to physiological parameters, our study also stresses the beneficial effects of meditation on mental well-being of subjects practicing Raja Yoga meditation like overcoming anger, mental stress, negative/waste thoughts and irritability and also freedom from addictions like tobacco chewing, alcoholic drinks and smoking after learning and practicing Raja yoga meditation. The benefits seem to have improved with longer duration of meditation.

Focus on emotion-related brain activity is important because meditation (other than Raja Yoga) has been found in numerous studies to reduce anxiety and increase positive affect.[2,19,20] Several other studies have shown that subjects with anxiety, irritability and mental stress could benefit from Raja Yoga meditation.[14,16] Findings of other studies also corroborate the present results. In a research study, medical wing of Raja Yoga Education and Research Foundation examined 181 persons who were addicted to tobacco before they were introduced to Raja Yoga meditation. Out of 181 persons, 74 % were able to get rid of addiction to tobacco within a month. Another 19% were free from the addiction just within 3 months. Thus 93% were free from the addiction just within 3 months. This strongly implies the use of Raja Yoga for de-addiction.[14]

In another study, 1500 people practicing Raja Yoga for variable duration were surveyed. It was found that, out of 1500, 824 people were suffering from sleep disturbances before learning meditation. 82% experienced over 50% benefit just within a period of one month. Among the 1500, 183 persons were smokers. 75% got rid of the unhealthy habit within one month, 93% stopped smoking within 1 year, out of 80 alcoholics, 98% were alcohol free after one month. It is interesting to note that 80% got more than 50% improvement in their general health.[16]

Activities of sympathetic and parasympathetic system are regulated by the respective centers located in hypothalamus. Mental tension creates an imbalance in these two components of autonomic nervous system. Anger, mental stress, hatred, irritability etc stimulate sympathetic nervous system, leading to high blood pressure, angina pectoris and heart attack whereas negative emotion like fear stimulate parasympathetic nervous system leading to acidity, peptic ulcer and diarrhea. It is caused due to the over activity of parasympathetic nervous system. Thus the balance between sympathetic and parasympathetic nervous system, which is essential for health, is disturbed due to various negative feelings. This imbalance leads to many physical diseases, ranging from diarrhea to heart attack. This balance has, therefore, to be maintained in the interest of health.[16] The negative emotions like worries, nervousness, anger, suspicion, hatred, fear etc can disturb the normal functioning in several ways. Raja Yoga meditation is the most promising technique for transforming attitudes towards stressful situations and to elicit the relaxation response.[9] It helps to get rid of dependence on tobacco, alcohol and drugs in a number of ways. First of all, a practitioner experiences an immediate sense of tranquility and relaxation during Yoga. This natural feeling of wellbeing removes the intense craving for the artificial alternative. Secondly, by turning his mind to God, who is the ocean of all spiritual powers, the subject is able to increase his own will power and thus to reduce the dosage of medicines and regularity of his addiction. Thirdly, the deep experience of peace, love and purity as the original attributes of the soul results in a natural aversion therapy and creates a real and inwardly felt emotion of repulsion towards the unhealthy habit. Lastly, when a person reduces the dose of the drug with the help of meditation and his general habits and ways of thought are changed, his inner power keeps on increasing and in due course, he is able to overcome the unhealthy habit completely.[21]

Thus we believe that reasonable evidence indeed exists for the use of meditation to promote well being. Scientific studies are available demonstrating the beneficial effects of meditation; a few of them tell us about changes that are potentially more enduring. The long lasting effects of meditation are probably what we are looking for improving the well-being. Thus, we infer that further scientific studies are required for understanding of the neural circuitry underlying emotions, cognitive behaviour, negative and positive psychological processes which will definitely help scientists to explore the evidence we are seeking for the effectiveness of traditional practices like meditation.

Conclusions

The study findings indicate that Raja Yoga meditation provides significant improvements in cardio-respiratory functions by tilting of autonomic balance from sympathetic in favour of parasympathetic. Also, it has been proved that the study subjects particularly long term meditators improved significantly in the areas of wellbeing, anxiety and mental stress by learning and applying a program based on Raja Yoga meditation. It transforms one's lifestyle and relieves emotional and mental conflicts as well as brings lasting peace and satisfaction in

one's life. Thus the control over the mind achieved through Raja Yoga meditation has a profound impact in overcoming unconscious anxieties, fears, mental stress etc. It helps to get rid of dependence on tobacco, smoking, alcohol and drugs by recharging mental energies into positive and blissful directions and intuit solutions to stress-causing events which are life-enhancing for all concerned.

List of abbreviations

STM – Short term meditators
LTM – Long term meditators
HR – Heart rate
RR – Respiratory rate
SBP – Systolic blood pressure
DBP – Diastolic blood pressure
BMI – Body mass index
WHR – Waist hip ratio
FBS – Fasting blood sugar
ANOVA – Analysis of variance

IRB permissions

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Table 1: Demographic and other characteristics of study subjects

Characteristics (p value between short term And long term meditators)	**Short term meditators (n = 27)**	**Long term meditators (n = 73)**	**χ^2 test P value**
Age in years (mean ± SD)	49.37 ± 11.95	53.05 ± 12.98	**0.20 (t test)**
Sex			**0.14**
Male	12 (44.4)	21 (28.8)	
Female	15 (55.6)	52 (71.2)	
Marital status			**0.69**
Married	17 (63)	54 (74)	
Unmarried	4 (15)	7 (10)	
Widowed	5 (18.5)	11 (15)	
Separated	1 (3.5)	1 (1)	
Type of family			**0.55**
Nuclear	17 (63)	41 (56)	
Joint	10 (37)	32 (44)	
Educational status			**0.49**
Illiterate	2 (7.4)	10 (13.7)	
Up to middle school	4 (15.0)	15 (20.6)	
Up to HSC school	10 (37.0)	29 (26.0)	
Graduate & above	11 (40.6)	19 (39.7)	
Physical exercise			**0.05**
Sedentary	16 (59)	21 (29)	
Non-sedentary	11 (41)	52 (71)	

Body mass index (BMI)			**0.44**
< 18.5 (Underweight)	2 (7.4)	14 (19.1)	
18.5-25 (Normal)	16 (59.2)	32 (44)	
25-30 (Pre-obese	8 (30)	24 (33)	
≥ 30 (Obese)	1 (3.7)	3 (4.1)	
High Waist-Hip ratio			**0.37**
>1 in males and >0.85 in females	6 (23.07)	23 (31.5)	
Fasting blood sugar level			**0.94**
Normal (non-diabetic)	22 (81.4)	60 (82.19)	
High (diabetic)	5 (18.5)	13 (17.8)	

Figures in parentheses indicate percentages.

Table 2a: Physiological variables pre and post – meditation among short- term meditators

Physiological variables	Pre – meditation (Mean ± SD)	Post – meditation after 15 minutes (Mean ± SD)	Post – meditation after 30 minutes (Mean ± SD)	ANOVA P value
Heart rate (beats/min)	72.22 ± 1.15	73.18 ± 9.30	69.40 ± 6.90	0.106
Respiratory rate per min	18.96 ± 2.19	18.11 ± 2.47	17.22 ± 1.86	0.017*
Systolic blood pressure (mmHg)	122.70 ± 14.38	118.29 ± 15.33	114.59 ± 11.17	0.101
Diastolic blood pressure (mmHg)	82.29 ± 10.44	80 ± 8.32	78.44 ± 7.89	0.288

*P < 0.05 i.e. statistically significant

Table 2b: Physiological variables pre and post – meditation among Long - term meditators

Physiological variables	Pre – meditation (Mean ± SD)	Post – meditation after 15 minutes (Mean ± SD)	Post – meditation after 30 minutes (Mean ± SD)	ANOVA P value
Heart rate (beats/min)	74.71 ± 8.91	71.58 ± 7.65	70.63 ± 7.68	0.007**
Respiratory rate/min	19 ± 3.97	17.72 ± 2.05	17.41 ± 2.07	0.002**
Systolic blood pressure (mmHg)	124.13 ± 15.18	118.54 ± 13.32	117.06 ± 13.97	0.007**
Diastolic blood pressure (mmHg)	83.20 ± 10.24	80.21 ± 9.73	78.49 ± 9.29	0.014*

*P < 0.05 i.e. statistically significant

**P < 0.01 i.e. statistically highly significant

Table 3a: Distribution of study subjects according to habits pre and post – meditation learning

Habits	Pre – meditation learning (N=100)		Post – meditation learning (N=100)		P value
	Short term meditators (n=27)	Long term meditators (n=73)	Short term meditators (n=27)	Long term meditators (n=73)	
Tobacco chewing	5 (22.7)	17 (77.3)	2 (100)	0	<0.05
*Cigarette smoking	4 (40)	6 (60)	0	0	-
Alcoholic drinks	6 (37.5)	10 (62.5)	2 (100)	0	>0.05
Non–vegetarian diet	19 (29.7)	45 (70.3)	1 (100)	0	>0.05
Multiple habits	5 (41.7)	7 (58.3)	2 (100)	0	>0.05

Figures in parentheses indicate percentages.
* No statistical test was applied since column total is 0.

Table 3b: Distribution of study subjects according to negative attributes pre and post – meditation learning

Negative attributes	Pre – meditation learning (N=100)		Post – meditation learning (N=100)		P value
	Short term meditators (n=27)	Long term meditators (n=73)	Short term meditators (n=27)	Long term meditators (n=73)	
Anger	25 (30.5)	57 (69.5)	5 (33.3)	10 (66.7)	>0.05
Mental Stress	24 (26.1)	68 (73.9)	4 (40)	6 (60)	>0.05
Negative / Waste thoughts	16 (48.5)	17 (51.5)	4 (36.4)	7 (63.6)	>0.05
Irritability	9 (40.9)	13 (59.1)	1 (50)	1 (50)	>0.05
Multiple negative attributes	23 (29.5)	55 (70.5)	3 (23.1)	10 (76.9)	>0.05

Figures in parentheses indicate percentages

Table 4: Distribution of study subjects according to spiritual practices

Spiritual practices	Study subjects (N=100)				P value
	Regular		Irregular		
	Short term meditators (n = 27)	Long term meditators (n =73)	Short term meditators (n = 27)	Long term meditators (n= 73)	
Visit to Brahmakumaris centre	19 (22.4)	66 (77.6)	8 (53.3)	7 (46.7)	<0.05
Raja Yoga meditation	17 (22.4)	59 (77.6)	14 (58.3)	10 (41.7)	<0.05
Listening spiritual discourses	19 (22.6)	65 (77.4)	8 (50)	8 (50)	<0.05
Spiritual service	20 (23.5)	65 (76.5)	7 (46.7)	8 (53.3)	>0.05

Figures in parentheses indicate percentages.

Table 5: Distribution of study subjects according to benefits experienced by Raja Yoga meditation practitioners

Benefits of Raja Yoga meditation	No. of Raja Yoga meditation practitioners experiencing benefit		Total	P value
	Short term meditators (n=27)	Long term meditators (n=73)		
Stopped addictions	19 (19.4)	70 (78.6)	89	<0.05
Mental peace	6 (10)	54 (90)	60	<0.05
Happiness	10 (16.7)	50 (83.3)	60	<0.05
Decreased vices	9 (18)	41 (82)	50	>0.05
Improved health	2 (20)	8 (80)	10	>0.05
Increased tolerance power	1 (16.7)	5 (83.3)	6	>0.05
Freedom from fear	2 (33.3)	4 (66.7)	6	>0.05
Stopped crying	1 (20)	4 (80)	5	>0.05
Increased judgment power	0	4 (100)	4	>0.05
Financial benefit	0	2 (100)	2	>0.05
Got rid of severe depression	0	1 (100)	1	>0.05

Figures in parentheses indicate percentages.