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Psychology

A Study to Evaluate the Effect of Sahaja Yoga Meditation on General Health, Emotional Wellness and Behavior Pattern on College Students

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Abstract **Original Research Article**

Meditation is considered as the doorstep of peace from ancient Indian civilization. Sahaja yoga is a method of meditation to connect an individual from within; results in thoughtless awareness and peaceful mind. The present study has been conducted on a group of students of 16-21 years of age from Sheth N. K. T. T. College Thane, India. The students were examined physically for their oxygen level, pulse rate, body temperature on different points on palm (known as chakras) as well as subjected to questionnaires; The Short Form (36) Health Survey (SF-36) and Strengths and difficulties questionnaire (SDQ) for their physical and emotional health as well as behavior pattern before and after 12 weeks of meditation. The collected data was analyzed to understand the correlation between the variables and sahaja yoga meditation. The study showed a significant, beneficial change in the oxygen level, pulse rate. The overall health score analyzed by SF-36 and behavior score analyzed by SDQ improved in all participants significantly. The study showed a significant improvement in general, emotional health and behavior pattern on practicing sahaja yoga meditation for 12 weeks.

Keywords: Sahaja Yoga, Meditation, General and emotional health, social behavior, body temperature.

INTRODUCTION

Sahaja Yoga is a method of meditation that transforms and synergizes the meditator's inner dimensions to become moral, united, integrated and a balanced human being that leads to a state of silence and mental peace. Sahaja yoga was founded in 1970 by Dr. Nirmala Chandrika Prasad Srivastava, followed and practiced in more than 140 countries including India at free of cost. Experienced Sahaja Yoga Meditation practitioners have recounted multiple benefits resulting in healthy and balanced well-being in the present scenario. Reported benefits included improvements in quality of life, blood pressure control, and reduction in anxiety, improved in depression and mental health, psychological disorders [1-4]. A study by Hernández *et al*. [5] concluded that that long-term practice of Sahaja Yoga Meditation is associated with larger grey matter volume overall, as well as with regional enlargement in several right hemispheric cortical and sub-cortical brain regions that are associated with sustained attention, self-control, compassion and interceptive perception. By following this meditation, people have also experienced an improvement in social relations, improvement in memory, artistic talent development etc (https://www.sanantoniomeditation.org/how_can_sahaja_yoga_help.php). In today's technology driven society, the majority of the youth is experiencing the pressure of study, career development and in a race to win materialist things at the cost of inner peace. With this reference, Sahaja yoga meditation helps to overcome physical and emotional problems without boundaries of age, sex and religion.

In our body, there is a subtle system made up of the centre of energies (chakras) as well as channels known as nadis. There are seven chakras (Mooladhara, Swadishthan, Nabhi, Heart or Anahat, Vishuddhi, Agnya and Sahasrara) and three nadies (Ida, Pingala, and Sushumna) in the human body represented in figure 1. Chakras are located along with our spine as well as represented on hands, on feet and on our head. Each

chakra is associated with some characteristic feature as; Mooladhar: innocence, Swadishthan; creativity, Nabhi: peace, Heart: love and compassion, Vishuddhi: collectivity, Agnya: forgiveness and Sahasrara: Integration. In sahaja yoga meditation seekers experience a cooling effect of different chakras on their body, indicating a balanced state of that chakra.

The present study has been conducted to determine the effect of sahaja yoga on a small group of college going students with reference to their physical, emotional health and behavior and to observe if there is any correlation of temperature of chakras of the participants with their health and behavior.

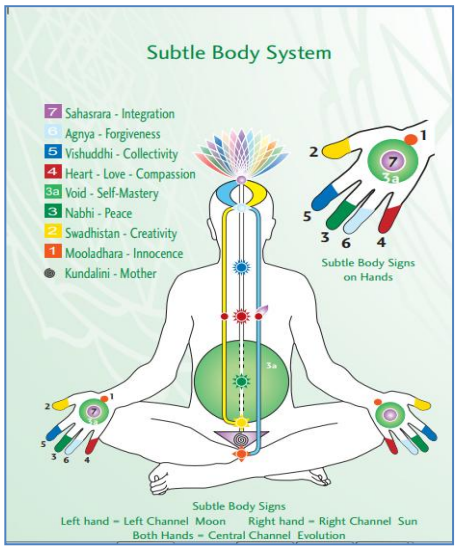

Fig-1: A representative picture of human body representing location of different chakras and nadies (Reproduced from https://www.pinterest.com/pin/552253973045432228/)

METHODOLOGY

Site and duration of the study: The study was conducted at Sheth N. K. T. T. College of Commerce, Thane, India from Nov 2017 to Feb 2018. The participating students were selected randomly as per their willingness.

Sensitization and enrollment of the Study participants: The Principal, professors and college students were sensitized on study procedures and benefits. The study was conducted on college students of 16 to 21 years of age. The willing participants produced a written consent form duly signed by them self. A total of 261 students enrolled in the study. However, 36 students completed the 12 week tenure of the study.

Evaluation of general and emotional health: The consented participants were subjected to general health examination by the physician, including to measure blood oxygen level and pulse rate using oximeter and temperature of different chakras on hand using infrared thermometer. The participants were also subjected to the questionnaire SF-36. The questionnaire contains 36 questions of eight scaled scores relating to a specific aspect of health experience; General health (Q1, Q33 to Q36), physical functioning (Limitation of activities; Q3 to Q12), Physical health problems (Q13 to Q16), emotional health problem (Q17 to Q19), Social activities (Q20 and Q32), Pain (Q21 to Q22), Emotional wellness (Q24 to Q28 and Q30) and Energy (Q23, Q27, Q29 and Q31). Each scale was transformed into a 0-100 scale with the assumption that each question carries equal weight. The higher score presented better quality of that parameter; a score of zero is equivalent to maximum disability and a score of 100 is equivalent to no disability.

Evaluation of behavior pattern and Emotional wellness: The consented participants were subjected to Strengths and difficulties questionnaire (SDQ) to measure behavior pattern and emotional wellness, obtained from http://www.sdqinfo.org. SDQ divided into subscales including pro-social behavior (Q1, Q4, Q9, Q17, Q20), hyperactivity (Q2, Q10, Q15, Q21 and Q25), emotional problems (Q3, Q8, Q13 and Q16), conduct problems (Q5, Q7, Q12, Q18 and Q22), peer relationship problems (Q6, Q11, Q14, Q19 and Q23) and total difficulty (26 to Q33). The score of SDQ has been calculated by using SDQ assessment Software. The score ranged from 12 to 34. For each subscale; scores range from 0–10. A higher score is indicative of more problems for all subscales, except for the pro-social scale, where higher scores correspond to better social behavior.

Meditation sessions: The meditation sessions were conducted for one hour, twice a week. The session included general meditation methods of sahaja yoga (Cleaning of subtle body system through prayers to five natural elements: Air, water, fire, eather and earth), instrumental music, question-answers session; related to meditation practicing, general and emotional health and feedback. The participants were suggested to follow meditation at their home daily for at least 15 minutes.

DATA ANALYSIS

The enrolled participants were examined for physical parameters including blood oxygen level, pulse rate, the temperature of different chakras using as well as SF-36 and SDQ scores. All tested parameters before initiation of meditation sessions as well as at the end of the meditation after 12 weeks were measured. Statistical software SPSS was used to understand the correlation between the variables and the changes in the health and behavior patterns of the students after attending the meditation sessions. The parameters were compared by using linear regression analysis. Descriptive analysis along with ANOVA and Pearson's correlation were considered suitable to understand the relationships between blood oxygen levels, the temperature of different chakras, and the health and behavior patterns amongst the selected students.

RESULTS

Demographic characteristics of the studied group: The participants belong to 16 to 21 years of age. Out of 36 students, who completed the study; 4 were male and 32 were female. The participants were undergraduate students without any disability and having local residents with their families.

The physical and emotional health of the participants

The body oxygen level as well as pulse rate of 36 participants were measured by blood oximeter, before initiation of mediation and after 12 weeks of meditation are presented in table 1. A significant improvement was observed on following meditation session in both blood oxygen level and pulse rate. The physical health was also analyzed by SF-36 questionnaire. The SF-36 scores of all sections were improved very significantly, indicating that the sahaja yoga practice is a vital way of living with good physical and emotional health (table 2).

Table-1: Blood oxygen level and pulse rate of the participants before and after sahaja yoga meditation for 12 weeks

S. No	Parameter	Day 0 O_2 in mm Hg (Mean±SD)	After doing 12 weeks meditation O_2 in mm Hg (Mean±SD)	Pearson Correlation	Sig value
1	Blood Oxygen Level	96.27±2.86	97.33±2.64	0.868	0.00
2	Pulse rate	91.39 ±13.54	88.72 ±12.94	0.980	0.00

Table-2: The SF-36 questionnaire scores of the participants before and after 12 weeks of sahaja yoga meditation

S. No.	Scale	Day 0 Score (Mean±SD)	After doing 12 weeks meditation Score (Mean±SD)	Pearson Correlation	Sig value
1	General Health	64.58±14.41	78.47±10.87	0.966	0.00
2	Physical functioning	62.5±15.51	75.27±11.58	0.966	0.00
3	Physical health problem	62.50±15.51	75.27±11.58	0.966	0.00
4	Emotion health problem	50.92±31.35	71.29±33.00	0.839	0.00
5	Social activities	59.72±19.84	77.08±15.38	0.912	0.00
6	Pain	58.12±15.36	70.20±11.80	0.822	0.00
7	Emotional Wellness	65.00±8.89	77.38±8.89	0.959	0.00
8	Energy	62.22±14.75	76.52±12.69	0.923	0.00

Improvement in the emotional behavior

The emotional behavior of the participants was measured by SDQ questionnaire; well-known questionnaire for emotional behavior measurement [6-8] and results are summarized in table 3. The data presented in table 3 shows a positive correlation on the pro-social attitudes, hyperactivity, emotional problem, conduct problem, peer relationship problems amongst the subjects after performing sahaja yoga meditation for 12 weeks. A moderate correlation was observed in the students reflecting the improvement in total difficulty levels after practicing Sahaja yoga meditation for 12 weeks.

Table-3: The SDQ questionnaire scores of the participants before and after 12 weeks of sahaja yoga meditation

S.No.	Scale	Day 0 Score (Mean±SD)	After doing 12 weeks meditation Score (Mean±SD)	Pearson Correlation	Sig value
1	Pro social behavior	6.75±1.07	8.11±1.34	0.884	0.00
2	Hyperactivity	3.13±1.39	2.02±0.90	0.896	0.00
3	Emotional problem	4.33±1.82	2.86±1.35	0.899	0.00
4	Conduct problem	3.61±1.42	2.39±0.871	0.911	0.00
5	Peer relationship problem	6.83±2.5	2.08±0.769	0.036	0.00
6	Total difficulty	23.30±3.14	16.33±2.07	0.485	0.00

Temperature of chakras and liver

The temperature of all 7 chakras as well as liver represented on palm was measured before initiation of mediation and after 12 weeks of meditation by infra red thermometer and presented in table 4. A very positive correlation was found between the IR Temperature and Mooladhara, Swadishthana Chakras after 12 weeks of meditation, The desire to innocence, have wisdom along with knowledge is the initiation of the change observed by Sahaja Yoga meditation. A fairly moderate correlation was observed between the IR temperature and Nabhi, Vishuddhi, front agnya Sahastrara and liver which can be an indication that slowly and gradually these chakras started responding to the regular meditation practice. The low level of correlation between IR Temp and back Agnya and Anahat could be due to difficulty in recognizing and surrendering to the Divine Power and developing love, compassion from the heart for all.

Table-4: The temperature of points on palm of participants representing all chakras as well as liver, before and after 12 weeks practice of sahaja yoga meditation

S No.	Site of body Chakras/ organ	Day 0 Temperature in Fahrenheit Mean±SD	After doing 12 weeks meditation Temperature in Fahrenheit Mean±SD	Pearson Correlation	Sig value
1	**Mooladhara**	95.44±2.36	91.34±2.67	0.848	0.00
2	**Swadisthana**	94.86±1.03	90.01±1.25	0.721	0.00
3	**Nabhi**	94.60±1.30	90.23±1.24	0.561	0.00
4	**Anahat**	95.02±1.29	92.16±1.61	0.431	0.007
5	**Vishuddhi**	95.28±1.94	93.08±1.91	0.680	0.00
6	**Front Agnya**	96.19±2.07	94.34±1.36	0.583	0.00
7	**Back Agnya**	96.76±1.21	93.91±1.15	0.120	0.257
8	**Sahastrar**	95.92±2.29	91.10±1.49	0.555	0.00
9	**Liver**	95.51±1.27	90.42±1.52	0.590	0.00

DISCUSSION

The present study has scientifically tried to assess the general health, social and behavioral changes in college students, after practicing Sahaja Yoga for four weeks. A positive improvement has been observed in general health, physical health, and emotional health and wellness parameters after performing twelve weeks of meditation by the college students. The study has revealed that relevant positive changes have been observed in social and difficulty parameters after consistent meditation. The Peer problem and total difficulty scored low on the scale, which could be due to the relatively smaller time duration of meditation practice. A cohort study involving a larger sample and spanning for a longer period in which the subjects have been practicing meditation will be able to give a better insight into these issues. Healing by meditation is a gradual process that slowly and gradually improves and energy of the chakras, thereby improving the emotional, physical and mental wellbeing of the respondents. The present study gives a snapshot of the manner in which the innocence, wisdom, pure knowledge, love, compassion, forgiveness can be inculcated in ourselves for betterment in our physical, mental, and emotional well being, in the present fast-moving lives.

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