

EFFECT OF YOGIC PRACTICES ON SUBJECTIVE WELL BEING

A. MALATHI*, ASHA DAMODARAN**, NILESH SHAH***,
NEELA PATIL**** AND SRIKRISHNA MARATHA

*Departments of Physiology, ***Psychiatry and ****Biochemistry,
LTMMC-LTMMGH,
Sion, Mumbai - 400 022*

(Received on July 3, 1999)

Abstract : Forty eight healthy volunteers who participated in the practice of yoga over a period of 4 months were assessed on Subjective Well Being Inventory (SUBI) before and after the course in order to evaluate the effect of practice of yoga on subjective feelings of well-being and quality of life. A significant improvement in 9 of the 11 factors of SUBI was observed at the end of 4 months, in these participants. The paper thus, reiterates the beneficial effects of regular practice of yoga on subjective well being.

Key words : yoga

subjective

well-being

INTRODUCTION

Literature on well-being and positive health, including mental health, is relatively scant when compared with the wealth of literature on disease, disability and disorders (1). However, over the last decade, a considerable body of empirical research has begun to accumulate, focusing on subjective well-being, happiness, life satisfaction, positive affect and feelings about social life. Diener (2) and Larsen et al (3) have prepared extensive review on the work done in this area. People live in a variety of situations and they do not feel the same way about life and the world around them. From a practical viewpoint, it is important to know how different persons feels with regard to their day-to day concerns

like their health or family. Such knowledge is necessary if an improvement in the quality of the people is to be brought about.

Yoga is one of the methods by which a goal of positive mental health can be achieved (4). In the last few decades, the philosophy and practice of yoga has assumed importance in improving the quality of life and the treatment of number of psychiatric and psychosomatic disorders (5, 6, 7,). The philosophy of yoga has been also inculcated in the practice of psychotherapy in India (8,9,10,). Practice of yoga has become increasingly popular in India as well as in Western countries as a method for coping with stress and improving quality of life. The present study was undertaken with the aim to study the effect of regular practice of yoga on subjective well being.

*Corresponding Author

**BARC, Mumbai

METHODS

The study was conducted in the department of physiology at one of the medical colleges and general hospitals of Mumbai. Fifty staff members (laboratory technicians, laboratory assistants, clerical staff etc.), which included twenty five males and twenty five females who were interested in participating in the study and who were not suffering from any major physical or mental problems were selected for the study.

All the subjects participated in integrated yogic practices daily for a period of 1 hour for 5 days a week for a period of 4 months. The details of yogic practices are as mentioned in Table I. These sessions were conducted by a qualified yoga teacher and qualified doctors who were well experienced in this field. Along with the yogic practices, six discourses on philosophy of yoga were also delivered over of 4 months. For

India Population. It consists of 40 questions related to ones feelings and attitude about various areas of life, such as happiness, achievement, interpersonal relationship etc. The individual is expected to make a choice from one of the three options—like (a) Not so much, (b) To some extent or (c) very much. It was scored by attributing the values 1,2 and 3 to response categories a, b and c. In the present study the SUBI was scored by working out scores on 11 factorial dimensions as recommended by Sell and Nagpal (1). The scores, before and after the practice of yoga, on these 11 factors, were compared using paired t-test.

RESULTS

Out of 50 members who participated in the study at the beginning, 2 of them (1 male and 1 female) dropped out during the course due to their personal reasons.

TABLE I: List of yogic practices.

| | | |
|--------------------|---------------------|-------------------|
| Vajrasan | Parvatasan | Shasankasan |
| Majarsan | Vakrasan | Pacchimotasan |
| Matyasan | Quicck relaxation | Ekpada uttithasan |
| Pavan Muktasana | Makrasana | Bhujangasan |
| Shalabhasana | Tadasana | Ankle strech |
| Aradhakatichakrasa | Padahastasan | Ardhachakrasana |
| Suryanamskar | Savasan (Yoganidra) | Kapalabhati |
| Breathing exercise | Nadi Shuddi | Cooling pranayama |
| Aum chanting | Silence | |

evaluation of effect of these yogic practices all the participants were asked to respond on 'The Subjective Well Being Inventory' (SUBI) (1) at the beginning and at the end of 4 months. The SUBI is an instrument (a self administered inventory) developed to quantify the feelings of subjective well-being. It has been standardized for

Thus 24 males and 24 females completed the study. Their age ranged from 35 to 50 years (Mean (SD) =41.1 (4.4).

Positive factors

As evident from Table II, at the end of four months, in 5 out of 7 positive factors

significant improvement was observed. General well being (Factor 1): This factor reflects feelings of well being arising out of an overall perception of life as functioning smoothly and joyful. A significant improvement on 'General well being' was observed suggesting that the participants felt that they were happy and their life was interesting.

Expectation-achievement congruence (Factor 2): The items on this factor refer to feelings of well-being generated by achieving success and the standard of living as per one's expectations, or what may be called satisfaction. A significant improvement on this factor shows that with the regular yogic practises and adopting the philosophy of yoga, there was an increase in feeling of success and satisfaction about their achievements in life.

Confidence in coping (Factor 3): This factor relates to a perceived personality strength, the ability to master critical or unexpected situations. As evident from the scores on this factor, even before the practice of yoga, the group had a relatively higher score on this factor as compared to other factors. After the practice, a further increase in confidence about coping up with crisis situations in life was noticed.

Transcendence (Factor 4): The items on this factor relates to life experiences that are beyond the ordinary day-to-day and rational existence such as feelings of oneness with the surrounding. The questions related to this factor were abstract, and it is likely that some of the participants may not have clearly understood meaning of it. But, in spite of that a small but significant increase in score was observed.

TABLE II: Scores on subjective well-being inventory before and after the practice of yoga.

| Factors | Before | After | T value | P value |
|--|------------|------------|---------|----------|
| | Mean (SD) | | | |
| Positive Factors | | | | |
| 1. General well-being | 5.3 (0.6) | 7.5 (0.7) | 2.8 | <0.01 |
| 2. Expectation-achievement congruence | 6.8 (1.1) | 8.2 (0.9) | 2.7 | <0.01 |
| 3. Confidence in coping | 7.2 (0.5) | 8.3 (0.7) | 2.7 | <0.01 |
| 4. Transcendence | 5.8 (1.0) | 6.5 (1.0) | 2.1 | <0.05 |
| 5. Family group support | 6.8 (0.6) | 7.2 (1.1) | 1.4 | >0.05 NS |
| 6. Social support | 7.8 (1.1) | 8.2 (2.0) | 1.0 | >0.05 NS |
| Negative Factors | | | | |
| 7. Primary group concern | 5.6 (1.6) | 4.6 (1.4) | 2.4 | <0.05 |
| 8. Inadequate mental mastery | 16.8 (1.1) | 4.6 (1.4) | 2.5 | <0.01 |
| 9. Perceived ill health | 14.9 (2.0) | 12.0 (2.4) | 2.2 | <0.05 |
| 10. Deficiency in social contacts | 5.8 (1.8) | 4.5 (1.6) | 2.7 | <0.01 |
| 11. General well-being-negative affect | 5.4 (0.8) | 3.8 (0.6) | 2.8 | <0.01 |

NS = Not Significant

Family group support (Factor 5) and social group support (Factor 6): These two factors reflect the positive feeling derived from the perception of family, relatives and friends as supportive, cohesive and emotionally attached. On both the factors, it did not reach statistical significance.

Negative factors

Table II shows the change in scores in negative factors before and after the yogic practises. A significant reduction in scores was observed in all the five factors.

Primary group concern (Factor 7): This factor tries to tap the concern and worries about the relationship of an individual with spouse and children. A significant decrease in worries about the relationship with spouse and children was noticed after the practice of yoga.

Inadequate mental mastery (Factor 8): The items on this factor imply a sense of insufficient control over or inability to deal efficiently with certain aspects of daily life which are likely to disturb the mental equilibrium. It deals with ability to remain calm and not to get angry or upset when things don't turn out as expected. The inadequate mastery is perceived as disturbing or reducing subjective well being. Though not very large, but still a statistically significant reduction in score on this factor shows that at least in some of the participants, there was improvement in mental mastery.

Perceived ill health (Factor 9): Worries over health and physical fitness both are related

to feeling of well-being. The items on this factor deals with worry about health and various somatic symptoms. Some of the yogic practices cause relaxation and are known to reduce the sympathetic activity as evident by decrease in anxiety, pulse rate and blood pressure (11,12,13). Thus, as expected, there was significant reduction in score on this factor with the regular practice of yoga over a period of 4 months.

Deficiency in social contacts (Factors 10): The common feature of the items constituting this factor are worries about being disliked or feelings of missing friend or close relationship. A significant reduction in score on this factor may be attributed to two reasons. This reduction may be attributed to the practice of yoga, but at the same time it is likely that just being in a group, meeting so many people regularly over a study period may itself have helped them to develop many friends and close relationship which has led to reduction in score on this factor.

General well-being-negative affect (General ill-being) (Factor 11): This factor reflects a generally depressed outlook on life. (Opposite of Factor 1). A significant reduction in score on this factor implies that there was a change in negative outlook of life and the participants didn't feel to be useless or boring and interesting anymore.

DISCUSSION

It is evident from the results that regular practice of yoga and adopting the philosophy of yoga leads to significant improvement in feelings of subjective well being.

Some of the other studies have also reported

on beneficial effects of yoga on quality of life. For example, Udupa KN et al (14) and Wood C (15) have reported the beneficial effects of 'Hatha-Yoga' on various physiological and psychological parameters. In their study, yoga group showed markedly higher scores in life satisfaction and lower scores in excitability, aggressiveness, openness, emotionality and somatic complaints. Similarly, in his twelve years of experience with yoga in psychiatry, Nespor (16) has emphasized the usefulness of yoga in the prevention of stress and burn-out in health care professionals.

It was surprising and unexpected to note in the present study that the group did not show significant improvement on two of the eleven factors viz. Family group support (Factor 5) and Social group support (Factor 6). It means that the participants did not feel very confident or were not very secure about getting help from family members, relatives and friends in problem

situation or when one is seriously ill. On Factor-6 (social group support) the baseline score itself was relatively very high of 7.8, which further increased to 8.2, which is very near to highest achievable score. Thus, the statistical lack of improvement on Factor-6 seems to be an artifact.

Based on the results of this study one may conclude that regular yogic practices and, adopting and implementing the principals of philosophy of yoga in the day to-day life improves the subjective feelings of well-being.

ACKNOWLEDGEMENT

the authors gratefully acknowledge the 'Grant-in-aid of Defence Research Development Organisation' for the financial assistance provided for this study.

REFERENCES

1. Sell H, Nagpal R. Assessment of subjective well being. *New Delhi, World Health Organisation* 1992.
2. Diener E. Subjective well being. *Psychol Bull* 1984; 65: 631-636.
3. Larsen RJ, Diever E, Emmons RA. An evaluation of subjective well being measures. *Social Indicators Research* 1985; 17: 1-17.
4. Verma LP. Yoga, meditation and mysticism. In: De Sousa DA, editors. *Psychiatry in India*. Bombay: Bhalani Book Depot, 1984: 21-52.
5. Vahia NS, Doongaji DR, Jeste DV, Kapoor SN, Ardhapurkar I, Ravindra NS. Psychophysiological therapy based on the concept of Patanjali-new approach to the treatment of neurotic and psychosomatic disorders. *American Journal of Psychotherapy* 1973a; 27: 557-565.
6. Vahia NS, Doongaji DR, Jeste DV, Kapoor SN, Ardhapurkar I, Ravindra NS. Further experience with therapy based upon the concept of Patanjali's in the treatment of psychiatric disorders. *Indian Journal of Psychiatry* 1973; 15 (1): 32-40.
7. Balkrishna V, Sanghvi LD, Rana K, Doongaji DR, Vahia NS. The comparison of the psychophysiological therapy with drug therapy. *Indian Journal of Psychiatry* 1977; 19(2): 87-91.
8. Neki JS. Psychotherapy in India : past, present and future. *American Journal of Psychotherapy* 1975; 29: 92-100.
9. Neki JS. Psychotherapy in India. *Indian Journal of Psychiatry* 1977; 19(2): 1-10.
10. Venkoba Rao A. Presidential address : Psychiatry thoughts in ancient India. *Indian Journal of Psychiatry* 1978; 20: 107-119.
11. Malathi A, Damosaran A, Shah In, Krishnamurthy G, Namjoshi P, Ghodke S. Psychophysiological changes at the time of examination in medical students before and after practice of yoga and relaxation. *Ind J Psychiatry* 1998; 40(1): 35-40.
12. Selvamurthy W, Nayar HS, Joseph NT, Joseph S. Physiological effects of yogic practice. *NIMHANS J* 1983; 1: 71-80.
13. Joseph S, Sridharan K, Patil SKB, ML, Selvamurthy W, Joseph NT, Nayar HS. Study of some physiological and biochemical parameters in subjects undergoing yogic training. *Ind J Med Res* 1981; 74: 120-124.
14. Udupa KN, Singh RH, Yadav RA. Certain studies on psychological and biochemical response to the practice of Hatha Yoga in young normal volunteers. *Indian J Med Res* 1973; 61(2): 237-244.
15. Wood C. Mood change and perceptions of vitality: a comparison of the effects of relaxation, visualization and yoga. *J R Soc Med* 1993 May; 86(5): 254-258.