THE PSYCHOSOMATIC DISORDERS AND THEIR MANAGEMENT IN AYURVEDA

by

R. H. Singh,

Dept. of Kayacikitsa Institute of Medical Science, Banaras Hindu University,
Varanasi, 221 05, India.

Abstract: - The Psychosomatic disorders are the outcome of the modern way of life and changing value systems and hence their incidence is rapidly increasing. These disorders may be prevented by necessary environmental correction in its physical as well as psychosocial dimensions and personality transformation. The scope of the practice of Yoga, Sadvrta, Medhya Rasayana therapy and similar other ancient positive health measures in the prevention and treatment of stress and psychosomatic disorders may be fruitfully explored.

A Psychosomatic disease also known as psychophysiological disease is essentially a disorder of stress. It is termed psychosomatic because the initial cause of such a disease, centres around the psyche and the manifestations are obviously somatic. For instance, a peptic ulcer diathesis is initiated in the form of psychic stress that ultimately results in the formation of a stomach or duodenal ulcer, which is very much a somatic presentation. Besides peptic ulcer, the other important psychosomatic disorders are ulcerative Colitis, Essential Hypertension, Ischaemic heart disease, Bronchial Asthma, Diabetes mellitus and Rheumatoid Arthritis.

In recent years, the incidence of Psychosomatic diseases has shown a tremendous increase throughout the world, especially in western affluent society, where most of the infectious and nutritional causes of ill health have been completely eradicated, but the psychosomatic disorders are emerging as a greater and growing challenge before the medical profession. It is at this juncture that attention has been drawn to Ayurveda and Yoga for their utilization in promotive, preventive and curative care of Psychosomatic ill health.

The Psychosomatic Approach

The fast growing incidence of Psychosomatic diseases and the increasing scientific knowledge on their aetiopathogenesis in recent years have led to the emergence of Psychosomatic Medicine as a major specialty in Modern medicine. However, the current thinking on this issue is to develop a comprehensive Psychosomatic Medicine in restricted sense. There is a need of making a psychosomatic approach to the study and care of health and every disease, without restricting it to few so called psychosomatic diseases. Because
every life event is a psychosomatic process and every disease is associated with varying degrees of Psychosomatic diathesis. This approach to health care where Ayu I. E. the life process has been conceived as a composite entity consisting of Sarira (Physical body), Indriya (developed sensory apparatus), Sattva (mind) and Atma (the conscious element). The state of health and or disease i.e. arogya and Vyadhi are described in relation to this four-dimensional life process – ‘Sarirendriya Sattvatma Samyoga’ and hence everything is psychosomatic.

The Aetiopathogenesis of Psychosomatic Diseases.

As emphasized earlier, a psychosomatic disease results from continued stressful state. ‘Stress’ is the term used to describe the nonspecific biological response of the body to an increased demand made upon it through a variety of stressors of stimuli from the environment.

Such environmental factors include physical as well as psychosocial stimuli. Ordinarily, stress response is a reversible physiological response designed to meet the increased demand on the organism during a stressful situation. A classical stress response consists of increased production of neurohormones, hormones, specially the cortisol and catecholamines leading to a series of resultant physiological and metabolic changes. When such a response overrides a limit, it starts producing irreversible changes in the body and thus precipitates a psychosomatic disease. Thus the pathogenesis of a Psychosomatic disease passes through Four describable phases also described by the author earlier, elsewhere, 1. Pure Psychic Phase, 2. Psychoneurotic phase, 3. Psychosomatic phase and 4. Advanced organic phase (Fig. 1.).

The Susruta’s concept of Sat-kriyakala has also been recently studied by the author and his associates in the context of Psychosomatic diseases. In the light of the nature of biological response one may include the Six Kriyakalas within the above mentioned four phases of Psychosomatic disease as per following scheme.

1. Psychic phase - Sancaya
2. Psychoneurotic phase - Prakopa and Prasara
3. Psychosomatic phase - Sthana Samsraya and Vyakti
4. Advanced organic phase - Bhedavastha

As greatly emphasized by Hans Selye in his recent book ‘Stress without Distress’ stress is a nonspecific response. How such a nonspecific...
### Kriyākāla of Psychosomatic Disorders

| Stressor       | Phase I  | Phase II | Phase III | Phase IV |
|----------------|----------|----------|-----------|----------|
| Environment    | Psychic  | Psychoneu- | Psychosom- | Organic  |
| I Psychosocial | (Samcaya) | rotic   | atic      | (Bhedā)  |
| II Physical    |          |          |           |          |

#### Therapeutic Measures
- Environmental Correction
- Yoga
- Medhya Rasāyana
- Specific Therapy and Surgery

---

Sātmya and Asātmyendriyārtha samyoga and the pathogenesis of psychosomatic disorders.
phenomenon leads to the development of specific psychosomatic disease such as Hypertension, Bronchial Asthma, Rheumatoid disease etc. has been a subject of discussion. Now it is presumed that the individual’s genetically determined personality i.e. his psychosomatic make-up plays a great role in the development of specific psychosomatic disease in a particular type of individual. Probably an individual develops the psychosomatic disease of a particular system or organ which is genetically weak. This is the reason why the same stress factor produces different types of stress diseases in different individuals. In this context, Ayurveda has very rightly emphasized the role of Deha-Prakrti3, 4 in health and disease.

Ayurveda describes three categories of etiological factors viz. 1. Asatmyendriyartha Samyoga, 2. Prajnaparadha, 3. Parinama. A critical examination of the nature of these three categories of aetiological factors would indicate that this an excellent classification of stress factors which are responsible for stress and psychosomatic diseases. Among these, the concept these Asatmyendriyartha Samyoga is very much interesting and has been developed in relevance to the Panca-Pancikarana theory of perception i.e. the Pancendriya phenomenon as described below:

1. Pancendriyani
   The five special senses.

2. Pancendriya Dravya
   The Five matter types of Pancamahabhutas predominantly present

3. Pancendriyadhishthana
   Five locations of Five special senses

4. Pancendriyartha
   The Five Tanmatra objects apprehended by the Five senses

5. Pancendriya Buddhi
   The Five perceptions

The above is the scheme of Satmyendriartha samyoga which is responsible for normal healthy perception of different of objects and their transformation into the respective Indriya Buddhis. In case of Asatmyendriartha samyoga the AsatmyaIndriya Buddhi i.e. stressful knowledge formed in relation to the Asatmpendriyartha i.e. stressful object interacts again with the Sattva i.e. the mind and produces imbalance of Raja and Tama Mano Dosas. If the Manasa Dosas are imbalanced beyond a limit they start influencing the Vatadi Sarira Dosas thus precipitating psychosomatic diatheses. If due to the particular nature of an Indriyartha such an Indriya Buddhi if formed which has tendency to aggravate Rajas in the mind, it in turn aggravate; Pitta and Vata. On the other hand in a reverse situation if Tamas is increased in the mind, it vitiates Kapha in the body. And
Thus a Psychosomatic Phenomenon sets in (Fig. 2).

**Principles of Management**

Prevention: The, psychosomatic disease is a preventable problem. Necessary environmental correction and personality training by practice of Yoga \(^5, 9\) and similar other measures may prevent the psychosomatic disease to a large extent. Environmental preservation both in its physical and psychosocial dimension is essential for prevention of psychosomatic disease in a given society: similarly personality training and transformation by practice of Yoga. Medhya Rasayana therapy, \(^10-13\) moral and spiritual teachings and other psychosomatic health promoting practices viz. Svastha Vrtta and Sadvrutta are essential for preventing such problems in an individual.

Treatment: A psychosomatic disease is preventable as mentioned above. However, when such a disease is established in its organic form, its management consists of two aspects. (1) Environmental correction and psychosomatic therapy including psychotherapy i.e. Satvavajaya, practice of yoga, use of psychotropic drugs and Medhya Rasayana therapy for curtailting the source of continued stress in these individuals, (2) Specific medical or surgical treatment for the established organic pathology, for instance, use of antacids, anticholinergic agents and appropriate surgery in a case of Peptic ulcer.

**Some Observations**

We have recently attempted to evaluate the role of certain indigenous measures in promotion of Mental health and in the prevention and treatment of psychological problems. A brief account of such studies is given below.

1. A sample survey conducted on a rural population near Banaras Hindu University Campus in Varanasi has indicated a considerably poor status of mental health. A randomized action of this population was induced to the practice of a selected simple schedule of Sadvrutta. A longitudinal follow-up repeat survey of mental health population conducted after six months indicated a trend of improvement of mental health of the population practicing Sadvrutta (table 1)

2. A series of apparently normal healthy individuals were induced to the regular practice of certain Yoga practices viz. certain selected Asanas, Pranayama and Relaxation one hour daily for six months under the supervision of a trained Yoga instructor. A set of Psychological and physiological investigation done on these volunteers before, after three months and after six months of starting Yogabhyaṣa indicated a number of beneficial effects on mental and physical health of the practitioners as described in Table 2.

3. Besides the use of Sadvrutta and Yoga, Ayurveda also describes a special class of promotive agents called Medhya Rasayanas claimed to promote mental health. Our recent studies have shown that the Medhya Rasayanas also possess considerable degree of anti-anxiety effect besides their classical mental health promoting role. We have conducted intensive clinical and experimental studies on a number of this class of remedies such as Sankhapushpi (Convolvulus pluricaulis), Brahmi (Bacopa monniera), Mandukaparni (Hydrocotyle asiatica), Asvagandha (Withania somnifera Dunal) etc. Most of these drugs have shown significant anti-anxiety and adaptogenic i.e. anti-stress effect and thus appear to be the potential source for developing medicinal therapy for Psychosomatic deseases. The
observations made on one of such drugs i.e. sankhapuspi as also reported else where, is being reproduced below (Table – 3).

4. Besides evaluation of the promotive and preventive of different measures described above, we have recently attempted to study the curative role of some of such remedies in established cases of certain phychosomatic disease like Essential Hypertension, Bronchial Asthma, Rheumatoid arthritis and Peptic ulcer. The beneficial effects the practice of Yoga and Rasayana therapy as observed in cases of certain Psychosomatic diseases are summarized in following tables (Table-4).

Table 1. Showing the pattern of Mental Health of a Rural population in Varanasi and the rate of its promotion with the practice of Sadvrta.

| Mental Health       | MHI Scores* | % Population |
|---------------------|-------------|--------------|
|                     | Initial survey | Follow up survey |
| Good                | <25         | 05.0         |
| Satisfactory        | 25-50       | 40.0         |
| Unsatisfactory      | >50         | 55.0         |

*MHI – Mental Health Inventory, Mishra and Singh (1980).

Table 2. Showing the pattern of promotion of Psychosomatic health in a series of normal volunteers practicing Yoga (Asana and Pranayaama) for 6 months.

| Observations                  | Initial       | After 6 months |
|-------------------------------|---------------|---------------|
| Performance Quotient (P. Q.)  | 93.15 ± 12.50 | 108.2 ± 14.70 |
| Intelligence Quotient (I. Q.) | 92.17 ± 18.60 | 106.2 ± 16.70 |
| Memory Quotient (M. Q.)       | 89.75 ± 9.15  | 100.8 ± 9.60  |
| Neuroticism Index (MPI N Scores) | 19.50 ± 9.95 | 9.82 ± 8.40 |
| Mental fatigue (Index)        | 1.590         | 1.200         |
| Health Index (CMI Scores)     | 192.00        | 94.00         |
| Rate of Respiration/M         | 16.80 ± 4.12  | 1340 ± 3.42   |
| Vital capacity in CC          | 37.29 ± 2.32  | 46.15 ± 3.49  |
| Breath holding time in Sec.   | 74.77 ± 18.94 | 101.2 ± 23.89 |
| Blood sugar (F) mg%           | 74.60 ± 5.25  | 63.07 ± 11.86 |
| Serum Cholesterol mg%         | 149.7 ± 31.24 | 133.55 ± 30.13 |

After Ud Murphy and Singh (1973), Ind. 6. Med. Res. 61/2: 207.
Table 3. Showing the anti-anxiety effect of the Medhya Rasayana drug, Sankhapospi (C Pluricaulis Chois) in cases of Anxiety Neurosis.

| Observations               | Before Treatment | After 1 month Treatment |
|---------------------------|------------------|-------------------------|
| Nervousness (Scores)      | 2.26 ± 1.15      | 1.00 ± 0.64             |
| Palpitation (Scores)      | 1.43 ± 1.23      | 0.78 ± 0.81             |
| Insomnia (Scores)         | 2.13 ± 0.71      | 1.04 ± 1.71             |
| Total Anxiety Level       | 47.61 ± 18.71    | 38.76 ± 19.40           |
| Prov. Neuroticism Index   | 26.40 ± 8.49     | 19.50 ± 10.25           |
| Immediate Memory Span     | 4.82 ± 0.82      | 5.60 ± 0.93             |
| Body wt. in Lbs.          | 110.60 ± 16.99   | 111.9 ± 13.71           |
| Blood pressure (Syst.)    | 119.60 ± 7.79    | 116.61 ± 8.32           |
| Plasma Cortisol ug/100 ml | 33.56 ± 6.96     | 22.18 ± 12.69           |
| Urinary VMA mg/creatinine | 2.28 ± 1.05      | 1.82 ± 0.99             |

After Singh (1978): Quart. J. Surg. Scs. 14 / 1: 155

Table 4. Showing the results of Yoga therapy in patients of certain Psychosomatic diseases.

| Clinical groups and observations | Before Therapy | After a course of Therapy |
|----------------------------------|----------------|---------------------------|
| Essential Hypertension:          |                |                           |
| Mean Blood Pressure              | 150/97 mmHg    | 137/88 mmHg               |
| Plasma Catecholamines            | 289.82 ± 12.01 | 234.91 ± 13.07           |
| Urinary VMA                      | 2.48 ± 0.23    | .05 ± 0.23                |
| Plasma Cortisol                  | 27.49 ± 1.67   | 25.03 ± 1.74              |
| Bronchial Asthma:                |                |                           |
| RBC Ach                          | 1.29 ± 0.39    | 0.95 ± 0.25               |
| Plasma Catecholamines            | 251.30 ± 11.88 | 255.60 ± 7.80             |
| Blood Histamine                  | 135.65 ± 46.03 | 116.80 ± 13.68            |
| Plasma Cortisol                  | 13.43 ± 8.27   | 15.43 ± 2.95              |

Extracted from project Report Yoga Res. Lab. I. M. S., B. H. U.

REFERENCES

1. Singh, R. H. and Sinha, B. N. (1976): Ayurvedic concept of the psychosomatic basis of health and disease. Ind. J. History of Science. 2/1: 75-80.

2. Singh, R. H. (1978): Psychosomatic approach of Indian Medicine. In 'Science Philosophy of Indian Medicine'. Edited by Udupa, K. N. and singh, R. H. (1978). Baidyanath Ayurveda Bhavan Pvt. Ltd. Nagpur-9.
3. Udupa, K. N.; Singh, R. H. and others (1975); Biochemical Basis of Psychosomatic constitution. Ind. J. Med. Res. (ICMR) 63/7: 923-927.

4. Singh, R. H.; M.B. and Udupa, K. N. (1980); A study of Tridosa as Neurohumours. Jour Res. In Ayurveda and Siddha. 1/1: 1.

5. Singh, R. H. (1978): Yoga and Health. In ‘Science and Philosophy of Indian Medicine’. Edited by Udupa, K. N. and Singh, R. H. (1978). Baidyanath Ayurveda Bhavan Ltd. Nagpur-9.

6. Singh R. H. (1978): Yoga and Ayurveda, with special reference to Yoga of Caraka Samhita Yoga awareness (Quart. Jour. Of International Yoga Co-ordination Centre). 2/1: 14, 1978.

7. Singh, R. H. (1979): Yoga and Ayurveda, their alliedness and scope as positive health sciences Key note Address to the First National Conference on Yoga Science and Society, Varanasi, subsequently published in the souvenir of the Yogis Conference of the YOCOCEN, New Delhi, Feb. 1981.

8. Udupa K. N. and Singh R. H. (1972): Scientific basis of Yoga, Jour, American Medical Assoc. (J.A.M.A.). 220 : 1365

9. Udupa K. N. and Singh, R. H. (1979); Yoga in relation to Brain-Pituitary-adrenocortical Axis. In a special volume on Brain-Pituitary-Adrenocortical-Axis. Academic Press (London), 27: 273-278.

10. Singh, R. H. (1978): Rejuvenation Therapy. In ‘Science and Philosophy of Indian Medicine’. Edited by Udupa. K. N. and Singh. R. H. (1978) baidyanath Ayurveda Bhavan Ltd. Nagpur-9.

11. Singh R. H. and Mehta, A. K. (1977); Studies on Psychotropic effect of the Medhya Raayana drug, Sankhapushpi (C pluricaulis Chois). Part I, II, & III Jour. Res. Ind. Med. Yoga and Homoeo. 12 : 3

12. Singh, R. H. and Malaviya, P. C. (1978) : Studies on the psychotropic effect of the Rasayana drug Asvagandha, (withania somnifera Dunal). Jour. Res. Ind. Med Yoga & Homoeo. 12: 3.

13. Singh, R. H and Singh, Lallan (1979): Studies on the anti-anxiety effect of the Madhva Rasayana drug, Brahmi (Bacopa mouniera Linn). Jour. Res. Ind. Med. Yoga and Homoeo 14 (3): 1-6.

14. Singhal. G. D. and Singh, R. H. (1980): Non-operative considerations in Ancient Indian Surgery, a book on Positive Health considerations. Ancient Indian Surgery series, Vol. V, Singhal Publications, Varanasi-5.

15. Udupa K. N. and Singh, R.H. (1978): Science and Philosophy of Indian Medicine. Baidyanath Ayurveda Bhavan Ltd. Nagpur-9.