PHILOSOPHICAL BASIS OF BIOFEEDBACK

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ABSTRACT: Modern Biofeedback Technique is the implementation of psychosomatic interrelationship in respect to health and disease, the psychophysical principle is utilized for psychosomatic self regulation. The basic concept of biofeedback training are well considered in the Vedas, and Yoga system of Indian philosophy. The concept of biofeedback training depends on the ancient philosophical concept of mindbody integration.

INTRODUCTION

According to modern “Biofeedback training” various psychosomatic diseases like hypertension headache asthma backache etc. can be treated and controlled with self control, self regulation and meditation. Biofeedback training reconnects the mindbody and spirit. It makes a person aware that he is alone responsible for the maintenance and control of his own health. Meditation and relaxation have been used in a number of clinical studies to achieve reductions in blood pressure in patients suffering from essential hypertension, gladman et al (1973) and green et al (1974-1977) studied the significance of biofeedback training for anxiety and tension, reduction. These workers observed significant physiological change following specific feedback therapy. The success of biofeedback training depends on creating a harmonious interaction of the mind and body. During the process of biofeedback therapy, it has been observed that pulse rate, plod pre4ssure and muscle tone can be significantly reduced by continuous practice of meditation was beneficial in the reduction of nervousness, insomnia irritability pulse-rate and heart-disease.

Continuous practice of meditation reduced the frequency and intensity of angina pain in comparison to drug therapy group. The use of biofeedback meditation and other yogic practices may provide useful means of altering physiological response assumed to be associated with complex psychological process in psychosomatic disorders.

Udupa et al (1978) also noticed a significant improvement following savasana therapy in hypertension cases. Bhagavad gita has also laid emphasis on self control, self-regulation of various sense-organs. The purification of mind has been considered most important for spiritual development gita repeatedly claims that evil effect of desires and attachments, anger and greed as the three gates of hell.

Bhagavad Gita

Bhagavad gita advocates the necessity for self-purification. If is only possible by the purification of body, mind in tellect and sense-organs (Gita V.II). All the objects of the sense organs are the root cause of miseries of the world. (Gita IX, 33). The lack of awareness of reality, the sense of
egoism or ‘I am-ness’, attractions and repulsions towards objects and the strong desire for life are the great afflictions which are responsible for all the miseries of life.

Brown (1970), Kamiya (1968) and Nowvis (1970) observed that many persons report entering a ‘Quasimeditational state of consciousness during alpha enhancement feedback. According to Jackson beatly et al this state of consciousness often called the ‘alpha experience’ is said to be a pleasant, relaxed and serene state characterized by a loss of body and time awareness, an absence of thought and egolessness. This state is similar to ‘Sthitprajna’ of Bhagvad gita.

Excessive desire for material things anger, grief, greed, fear and excessive exhilaration effect the bodily humors resulting in various diseases like hypertension, coronary heart disease, autoimmune disease etc. Indian philosophy has reportedly emphasized the significance of excessive material possession as the root cause of stress and strain which ultimately effect mind and body. Both modern scientists and ancient philosophers advocate that many psychological factors like lust (Kama), fear (Bhaya), sorrow (Soka), jealousy (Irsya), anger Krodha) anxiety (Cinta), guilt (Manoglani) frustration (Nairasya), depression (Sattva- hani), and mental fatigue (Mansika srama) have been included as precipitating factors of psychosomatic disorders.

**Influence of Yoga**

The basic concept of biofeedback is mainly related to yoga system of India philosophy. The object of Yoga sutra is cittvrittinirodh. In other words Yoga is the inhibition of the modification of mind. In order to control citta or (mind) Patanjali has told eight fold means of Yoga. The eight-fold methods of yoga as enumerated in Yoga sutra are

1. **Yama** (restraints)  
2. **Niyama** or the principles of he development of the personality,  
3. **Asana** or bodily postures,  
4. **Pranayama** or breath control,  
5. **Pratyahara** or the withdrawl of the senses,  
6. **Dharna** or attention  
7. **Dhyana** or meditation,  
8. **Samadhi** or concentration, asanas advocate the adaptation of various bodily postures conducive to bodily health, mental equilibrium and spiritual development. Pranayama is a method to regulate the breathing and thus one can control the physiological process. Pratyahara is the withdrawl of the senses from the wordly objects, In brief pratyahara is a technique of controlling senses by mind. Dharana means holding the object of attention before the mind dhyana is the contemplation of the object without any break or disturbance, thoughtless stage of mind is Samadhi stage. A sadhaka who practices Samadhi is not aware of any object except the object of meditation. There is no cognition in the act of awareness. It is at this stage that the yogi is capable of stopping all the vrittis of the citta Yoga vasistha has given maximum importance on breath control, self criticism and observance of right conduct in order to achieve the state of complete bliss.

Yoga is a technique for the path of self-realization. It is aimed at obtaining liberation through perfect control of body and mind.

In yoga sutra (11:15), Patanjali has advised that pranayama should be practiced regularly to attain good meditation, normal heath and mental peace. A mental stress is reflected upon the body through the nervous system and therapy produces somatic manifestations, a mental stress can bring even organic changes in the body. Various mental and somatic disease can be avoided and a perfect balance between mind and
body can be attained by the practice of various exercises described in patanjali yoga sutra (I:34). According to Vedanta mental diseases are the end result of the imbalance of the rajas and tama while somatic diseases arise due to imbalanace of the tridosha-vata, pitta and kapha. The mind is the cause of bondange and liberation. The mind acts as director and co-ordinator of the ten sense-organs of the body. Vedanta accepts a close inter-relationship and inter dependence of the body and mind.

Patel et al (1975) also observed significant fall in blood pressure following Yoga and biofeedback therapy. Benson et al (1974) and Shapiro (1976) had made extensive attempt to regulate the complete psychological process by biofeedback therapy. Jain and Buddhism also accepted the importance of self control and self-purification for the attainment of highest object of life which leads to moksa.

CONCLUSIONS

In brief Indian philosophy forms the basis of further investigation in the field of psychology and medicine. Te approach of biofeedback involves many disciplines and the main areas of discussion in this context are states of consciousness, creativity imagination attention and vigilance ancient Indian thinkers have laid emphasis on the analysis of inner self which develops capabilities of analysing the wordly miseries, the main object of meditation, relaxation and self regulation is to evolve human personality form jada to pure and fine consciousness.

To conclude, due to the resurgence of interest in self-exploration and self realization, it will be possible to develop a synthesis of ancient Indian philosophy and biofeedback training as tools for self regulation.

Biofeedback theory is the application of Indian philosophy in the modern science and technology, it is evident that biofeedback training depends on the ancient philosophical concept of mind –body integration. Mind –body is not divided. Ancient and modern scholars have accepted that physical and mental aspects of life do not stand in isolation but are skillfully blended into a harmonious whole.

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