CHAPTER II
LITERARY RESEARCH

In this chapter an attempt is made to evolve a model of the psychophysiological mechanism of CLBP as portrayed in yoga scriptures which points to complete reversibility of the processes involved in the occurrence of CLBP. The integrated approach of yoga therapy used as intervention for this study is based on this model.

2.1 Background

Psychosomatic ailments are on the rise. It has been found that traditional solutions to modern problems are increasingly becoming valid. The scriptures recognize that mind is the central organ of the entire conscious life. Hence it becomes mandatory to understanding the mind in all its facets during health and disease. Modern psychology has developed as an experimental science over the last 60 years since the time of Freud who proposed exiting models to understand psychosomatics and help a sick person to come to a normal level. On the other hand the psychology of Indian scriptures which has evolved over 5000 years started the study with introspective research by normal and highly evolved minds and went on to study the sick minds. Thus, the model has the possibility of providing not only relief from distress but can offer further growth to great heights of evolution beyond the sickness zone. This is what the definition of health by WHO envisages when it defined health as not mere absence of disease but as a state of wellbeing at physical, mental, social and spiritual levels.

If we can motivate a normal man into higher dimensions of life then there is a chance for him to go beyond the physical existence and the chances of him falling into a trap of sickness can be totally eliminated. This is the process of promotion of positive health that prevents psychosomatic diseases. Modern psychology is egobased and personality
oriented. Scriptures like *Upaniṣads* and *Bhagavadgītā* maintain that going into the trans-ego state and self-transcendence in order to experience the mystic unity of self and non-self will correct the problems of stresses arising from our current civilization.

### 2.2 Psychophysiological Pathway of CLBP according to Indian scriptures

(*Taittirīya upaniṣad, Yoga Vasistha, Paraśūrāma yoga sutras*)

Fig 2.1 *Prasava* of CLBP

<table>
<thead>
<tr>
<th>Ānandamaya kośa - freedom from distress - - perfect health</th>
<th>expansion &amp; non-activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>right knowledge – our basic stuff is sat cit ānanda</td>
<td>total silence</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vijjānānaya kośa – Imbalance – conflict between right and wrong knowledge</th>
<th>focusing begins</th>
</tr>
</thead>
<tbody>
<tr>
<td>lack of right knowledge of happiness</td>
<td>Constriction of ‘I’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manomaya kośa -- Imbalance at mind---</th>
<th>lost freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>uncontrolled excessive speeded up thoughts</td>
<td>repetition of loop of thoughts- constriction</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prāṇamaya kośa --- Imbalance of prāṇa</th>
<th>imbalance descends to body</th>
</tr>
</thead>
<tbody>
<tr>
<td>uncontrolled excess prāṇa speed</td>
<td>prāṇa constriction, blockage of nadis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annamaya kośa - Imbalance at physical level –Vyādhi - Chronic low back pain (ādhija vyādhi)</th>
<th>Imbalance settles down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>muscle spasm , inflammation, disc desiccation, degeneration</td>
</tr>
</tbody>
</table>
2.3 Yogic concept of CLBP as a mind-body disease

According to yoga, the causes of back pain (Nagarathna & Nagendra 2001) can be classified as ādhiṣṭha or anādhiṣṭha, i.e., functional or organic. The anādhiṣṭha (organic) causes include trauma, toxins, nutritional deficiencies and infections which contribute to only a small percentage of the cases of chronic back pain. The ādhiṣṭha (functional) causes begin as an internal imbalance caused by disturbances at the mind level. Today, we are recognizing how majority of the chronic cases of low back pain that are on the increase are traceable to non-specific causes related to modern lifestyle and the psyche. Thus mechanical back pain can be classified under ādhiṣṭha Vyādhis according to this classification by the yogic scriptures. To understand how these stresses that begin at the mind level, settle down in the body, we need to know the concept of five aspects of our body (Paï ca kośa Viveka) and the definition of stress according to yoga. In the tradition of Yoga and upaniṣads (most ancient Indian scriptures that cannot be dated), this concept of Paï ca kośa (the five aspects of our body) is described in the text called Taittirīya Upaniṣad.

2.4. Paï ca kośa concept of human system according to Taittirīya upaniṣad.

Taittirīya upaniṣad describes the fact that the human system is not just the gross physical form, but is made up of 5 levels of subtleties of existence which can be perceived by introspective investigations. These are (a) physical (Annamaya kośa), (b) astral (or energy layer, Prāśamaya kośa), (c) mental (Manomaya kośa), (d) intellectual (Vijñānānāmaya kośa), and (e) bliss (Ānandamaya kośa) layers of our existence that is involved in all our activities be it psychological or physical.
2.4.1 Annamaya kośa

In the tradition of Yoga and Upaniṣads, this concept of Paï ca kośa is described in Taittirīya upaniṣad where in the teacher Varuīa, the father is guiding the student Bhøgu in his search for reality. The son asks the father to tell him what is the most fundamental stuff of this universe from which all creation has come. The father leads him on through hints to perform Tapas (internal research) to find out an experiential answer to the question. The son goes into seclusion to search within and comes back to the father with an answer that all this universe is made up of ‘Anna’ (matter). Every thing in the universe is made of ‘Anna’, everything comes out of Anna, everything is sustained by Anna and every thing dissolves into Anna. Father is very happy that the son has been able to arrive at one common principle of the external universe. This matter (Anna), based aspect of our physical personality is called Annamaya Kośa. Annamaya Kośa consists of five elements (Paï ca bhūtas) namely the earth (Pøthvi), water (Jala or Ap), fire (Agni or Tejas), wind (Vāyu), and space (Ákáùa). This is normally nourished by the gross food that we consume.

This is what the modern science also has understood. It has successfully unraveled the subtleties of this Kośa. In his search towards reality or the unchanging fundamental unit of this universe, a scientist started with the external gross world of solid matter which is...
simple and easy to see, divide, and do experiments with. This search led him through steps of understanding of this entire world of matter starting from elements, molecules, atoms, protons, neutrons and electrons; He further understood that it is all packets of energy. The atoms conglomerate together to form various chemicals; our body is, therefore, a permutation and combination of various chemicals (i.e., packets of energy in various configurations). When they join together they form molecules, cells, tissues, organs, etc. These follow certain well-defined laws of nature and are controlled by nervous (electrical) and chemical (hormone) mechanisms to bring about movement and action in each and every cell. Thus, *annamaya koùa* is the physical frame made of all chemicals which is the grossest of the five *koùa*.

2.4.2 *Práïa* amaya Koùa.

Father *Varuïa* says “my dear son, there is something more subtle than what you have discovered, please go on and carry on with your internal research”. *Bhøgu* after a long research comes back and says

‘Oh, father, it is the *práïa* - the life energy, from which even the gross *annamaya Koùa* comes out’. *Práïa* the life energy described here is not the material electromagnetic energy spectrum known to modern science. All these energies like electricity, sound, light, radio, x-ray, etc. belong to *annamaya koùa* as they are bound by energy laws. The *práïa* described here is subtler than that. It does not follow the laws of the usual energies. It is described as,

\[ svayameva\ tänavaā\ yāti\ svayameva\ pēnatāā\ yāti \]

That which can increase or decrease by itself without any external agency.
The body may be there but without life or Práï a it is gross and useless. This Práï a is the basic fabric of this universe both inside and outside our body. A uniform harmonious flow of Práï a to each and every cell of the annamaya koùa keeps them alive and healthy. Práï a has the capacity to move into different areas of the body (annamaya koùa) depending on demand. For e.g., when you perform more brain work you need more Práï a in the head region, when you walk you need more Práï a in the lower limbs, etc. If the Práï a flow to any organ increases inadvertently and without control, it can lead to dysfunction of that organ at the annamaya koùa.

Práï a flows through subtle channels called nádis. The five dimensions of this Mukhya Práï a are called Païca Pránas (Práï a, Apána, Udána, Samána and Vyána). The classification is based on the direction of flow of the práï a. The downward force called Apána which is responsible for functions like defaecation, urination, menstruation, ejaculation, parturition etc. The life force that is responsible for breathing movement is called ‘Práï a’. Udána is responsible for upward activities like vomiting, coughing and spiritual evolution. Samána is responsible for proper digestion and balancing the Práï a and Apána. Vyána is that which is responsible for all activities in the periphery like nerve impulses, blood circulation, cellular activity in all cells. A balance between all these five Práï as is health, and imbalance is ill health.

2.4.3 Manomaya Kòùa

Bhøgu is now guided by his father to go back for Tapas. He returns after long panence and says “Oh. my Guru, I realise that Manas (mind) is the source of everything in this universe including the gross elements of the physical world”. This is called Manomaya koùa. This is the aspect of one’s personality wherein the mind carries on its different functions such as perception (Manas), memory (Citta) and ego (Ahankara). Mind, which
is defined as a conglomeration of thoughts responds to the input through sense organs. For example, you see a big red flower; eyes send the image to the brain and the mind (Manas) perceives it as a beautiful rose. Within the next fraction of a second your memory (Citta) decipheres that it as a very rare variety of rose which you wanted to see badly. The thought circulates in mind and citta which soon goes on to make you feel “Oh, it is so beautiful, I like it, I love it, I want it”. This component of the manomaya koùa in which this rapid recycling takes place and gathers momentum is called the ‘Emotions’ (Bhávaná). This is characterised by feelings such as “likes or dislikes”, “love or hate”, backed by the ‘I’ (the ego). It is this emotion that is the root cause of all human joy and distress. When the emotions become powerful, they start governing our actions against what is right. This “going against the cosmic lows” leads to imbalances called Ádhi or Stress. Long standing Ádhís get pushed into Práï amaya and Annamaya koùa causing Vyadis. Manomaya koùa is our mental and emotional library, the subtler layer of our existence. Hence the statement ‘You are what you think you are’ which Bhøgu realized as the basis of not only his own individual system but also as the basis of the entire creation.

2.4.4 Vijïänamaya koùa

As Bhøgu reports to Varuïa about this wonderful discovery, the master is happy but he says “Please move on. You have just a few steps; you are in the right direction.” Now through intense long tapas, Bhøgu realizes that it is all the Vijï äna (knowledge) from which the entire creation has happened and that could be the final reality.

Vijïänamaya koùa is the fourth layer of our exisstance. We all have two minds. For e.g., when the Manomaya koùa said that “It is a beautiful rose, I want to have it” and you started instructing your hands to pick up the flower, the inner mind said “Sorry, you cannot pluck that flower; it does not belong to you; it is from the neighbor’s garden” and
you stopped the action. This conscience within that continuously guides us to do a thing or not to do a thing is the Viji ānāmaya koūa. It is this component of the mind that has developed in human race greatly that differentiates man from animals.

Bhaṭṭrahari says.

A dhār inÔ Èy mēro < s amNy mēt !pz îÉ > n râm!
bū hr e saA i k æivž ē > bū ivRîn > pż îÉ > s man >.

āhāra nidra bhaya maithunaà ca sämanyametat paçubhiù narāēām buddhirhi teñām adhiko viçeñāù buddhirvihēnaù paçubhiù samānaù

Hunger, sleep, fear, procreative instinct are common to man and animals. It is the Buddhi (discriminating faculty) that is special for man. A Person who does not have this Buddhi is equal to an animal.

Bhaṭṭrahari brings out this point as to how the higher faculty, the Viji āna continuously guides the Manomaya koūa to get mastery over the basic instincts. Hence in man we know that, even these basic instincts are all psychological. For example we have lost the cyclical behaviour as in animals who get into reflex oestrus cycles (heat) for sexual behaviour. This freedom element which is inbuilt in all human beings, guides him to discriminate what is “good and bad”, “right and wrong”, “useful and not useful” to move towards long-term sukha (happiness). Thus, Viji ānāmaya koūa is the discriminating faculty.

2.4.5 Ānandamaya Koūa.

Vaṛūi a now directs the son to go back to tapas and this time Bhūgu never returns. The master goes to check why the son has not come back. He was surprised to see that Bhūgu is completely engrossed in deep Ānanda (bliss). There is no individual ‘I’ of the
Vijī āna or Manomaya koṇa, that can report to the father about his realisation. Bṛṣṇu is now established in the knowledge of the final truth that Ānanda is the basic stuff of this universe from which every thing has been created.

This is called Ānandamaya koṇa - the bliss layer of our existence. This is the most subtle aspect of our existence which is devoid of any form of emotions; a state of total silence - a state of complete harmony, and perfect health.

While in Manomaya Koṇa the creative power predominates, in Vijī ānamaya koṇa it is the power to discern and discriminate. Bliss is embodied in Ānandamaya Koṇa, the highest stage of evolution in the manifested existence. It is the subtlest among the five layers of existence. In his journey towards the Ultimate, man crosses these koṇas of existence one by one. Through analysis called ‘Païca kośa Viveka’ (Knowing through experience, one’s five Koṇas of existence) and practices called ‘Tapas’ man transforms himself by gradually getting relieved from the bondages and constrictions of each Koṇa. This is one of the methods of reaching the ultimate goal enumerated and described in the Upaniṣads.

2.5 What is Mind according to scriptures?

2.5.1 Understanding of mind according to Vedānta.

The scriptures recognize that mind is the inner organ, the Aṇtaukaraṇa. Desire, deliberation, doubt, faith, want of faith, patience, impatience, shame, intelligence and fear—all these are but the mind. The mind is the central organ of the entire conscious life. The impressions carried by the sense organs are shaped by the mind into ideas for we see only with the mind, hear with the mind, taste through the mind and experience pain.
and pleasure through the mind. Further, the mind changes the ideas into resolutions of the will.

2.5.2 Mind according to Yoga Vasiṣṭha

Here the mind is described as a flow of thoughts on the background screen of wakefulness. Mind is a conglomeration of thoughts. It is compared to an ocean. The quiet, non-moving water bed is the silent wakeful state of Ánandamaya Koṇa on which the mind (thoughts) flow as waves that rise and wane incessantly. Thus, mind is our thinking apparatus. This understanding helps us to realize that ‘I am not the mind but mind is only a transient ephemeral wave and we use it as an efficient fine instrument’.

मनो भविते एव धात्मा तरः इव वारिष्ठे।
तेनेवं इन्द्रजालश्रीं जागती प्रविष्टन्यते॥ यो याः ३-८॥

mano bhavati bhūtātmā taraṅga iva vāridheḥ |
teneyam indrajālaśrīḥ jāgati pravitanyate || yo va 3-8 ||

The mind becomes the individual soul just as the wave arises in the ocean. By that the jugglery of the worldly splendour is spread.

2.5.3. Mind as portrayed in Upaniṣads

The Upaniṣads have used the mind as an instrument of deliberation. The mind deliberates on the sensations gathered through the outer organs and determines what is right and what is wrong. The untrained mind is the cause of attachment, bondage and suffering. A purified mind is the means by which one realizes God or the universal principle of this universe.
2.5.4. Mind according to Patājali

According to Patājali, the mind (citta) is a conglomeration of thought waves and is made up of three components, Manas, buddhi, and āhaṅkāra. Manas is the recording faculty which receives impressions gathered by the senses from the outside world. Buddhi is the discriminative faculty which classifies these impressions and reacts to them. Āhaṅkāra is the ego-sense which claims these impressions for its own as individual knowledge. Vṛttis are the modifications of the mind or the facets in which the mind exist. Yoga is the control of thought waves in the mind.

योगाध्य्यात्मकार्यकरणः॥॥ प यो सु १-२॥
yogaścittavṛttinirodhaḥ ||p.y.s 1-2 ||

Yoga is the control of thought waves in the mind.

àmaś ivpyṛ ivk Lp inṭa Smty > ॥ प यो स U1 - 6 ॥
pramāṇa viparyaya vikalpa nidrā smātiyaù ||p.y.s 1 – 6 ||

There are five types of vṛttis. These are right knowledge (pramāṇa), illusion (viparyaya), delusion (vikalpa), sleep (nidrā) and memory (smāti). These are different aspects of psychological faculty that carry out different cognitive functions of a healthy mind.

2.6 Yogic definition of stress

We have seen that manomaya kośa is the mind aspect of our existence which is like the waves in an ocean and this has many facets i.e. perception ( Manaù), analysis (Buddhi) memory (Citta) and ego (Āhaṅkāra). Mind, which is defined as a conglomeration of thoughts responds to the inputs through sense organs. In the previous example of acquiring a rose flower from the garden, we have seen how the mind (Manaù) perceives, Buddha (intellect) interprets, citta (memory) retrieves from previous experience and the
Bhavana (emotions- powered thoughts) of ‘I love it and I want it’ gather momentum to send messages to pluck the flower. The component of the manomaya koùa in which the rapid recycling takes place and gathers momentum is called the ‘emotions’ (Bhävanä). This is characterized by feelings such as “likes or dislikes”, “love or hate”, backed by the ‘I’ (the ego). Complete mastery over these emotions is necessary for healthy functioning of the system. If one loses mastery over emotions he gets lost in the intense sense pleasures and enters into wrong lifestyle with wrong habits of eating or sleeping or working or consumption of alcohol, nicotine etc. Thus, the discriminating ‘I’ loses its mastery and gets lost in intense surges of emotions. Amongst all our emotions it is the negative emotions such as anxiety, suppressed anger and frustration that cause disease. According to Pataïjali. This state of disturbed functioning of the mind that results from wrong lifestyle is termed kleças. kleças are the cause for suffering and obstacles to ones’ evolution and stability. Five types of kleças are described.

There are five kind of thought waves - some painful, others not painful.

In the Bhagavadgétä the origin of a stress-related disorder is described as follows.

\[ \text{dhyāyato viṣayān puṁsaḥ saṅgasteṣūpajāyate |} \\
\text{saṅgāt saṅjāyate kāmah kāmāt krodho'bhijāyate || gītā 2-62 ||} \]
In one who dwells longingly on sense objects, an inclination towards them is generated. This inclination develops into desire, and desire begets anger.

\[
\begin{align*}
\text{krodha} & \text{dbhavati sa} \text{mohah sa} \text{mohat smrtibhrama} \\
\text{smrtibhrama} & \text{sa} \text{ddhat buddhin} \text{a} \text{praanasyati} \\
\text{gita} & \text{a 2-63} \\
krodhādbhavati saṁmohah saṁ mohāt smṛṭībhramah  \\
smṛṭībhramśād buddhināśo buddhināśat praṇaśyati || gītā 2-63 ||
\end{align*}
\]

Anger generates delusion, and delusion results in loss of memory. Loss of memory brings about the destruction of discriminative intelligence, and loss of discriminative intelligence spells ruin in a man (Swami Tapasyānanda, 2000).

Thus, the problem of chronic stress response begins in the Manomaya kośa. Reactions to a particular situation based on strong likes and dislikes trigger strong emotions. This is compared to the waves of the ocean getting more and more violent that can develop into a tsunami and become destructive. It can also be compared to a tornado wherein the rewinding wind gathers energy to become destructive. When one loses control over the rate of flow and the recycling of the same set of thoughts in the mind it becomes an uncontrolled emotion that can be termed stress. In Vijñānamaya kośa dominant individuals these thoughts arise at a controlled speed with enough ease and slowness which leads to actions with discrimination and stability. The actions are no longer reactions but well-balanced based on what is good or bad for the system. Thus, stress can be defined as uncontrolled speeded up recycling of thoughts in the Manomaya kośa. This is described in Bhagavadgītā as:
Here, even while in the body, whoever is able to withstand the agitation caused by lust and anger, he is the self-controlled one, he is the happy man.

The speed picks up over time due to added anxiety which becomes a part of the system and this habituated uncontrolled speeded up repetitive loop of responses form the seed for disease. This speed at the Manomaya koùa leads to increased nervous activity in the emotional (limbic) cortical pathways. Repeated activation of the same pathway leaves a person habituated to that track to such an extent that a small stimulus is enough to trigger off this loop of excessive activity in the nervous pathways almost like an involuntary reflex response to stressfully demanding situations. Further understanding helps us to find prāṇa as the link between mind and body.

2.7 Concept of mind-body disease

In Ānandamaya Koùa a man is healthiest with perfect harmony and balance of all his faculties. At Viji änamaya koùa there are movements, but are channelized in the right direction. As such, it is in the Manomaya level the imbalances start, say the yoga texts. Likes and dislikes have come to play at this level. They start governing our actions; often they are in the wrong direction. The liking of Gulab Jamoon in a diabetic may lure him to eat the same against doctor’s advice. Thus going against what is right causes imbalances. These imbalances amplify themselves resulting in mental illnesses called Ādhis’. At this stage there are no symptoms at the physical level. Prompted by the perpetual growth of desires, these mental diseases concealed in us, begin to manifest themselves as wrong
actions such as eating of unwholesome food, living in unhealthy dwellings, doing things at untimely hours, association with the wicked, evil thoughts, inflict injuries, etc. These breed physical diseases called Vyādhis or the secondary diseases.

The text goes on to describe that these persistent agitations cause violent fluctuations in the flow of Prāïā in the Nāōēś. The Prāïā flows in wrong paths flying from one to the other without rhythm and harmony. The Nāōēś can no longer, in this condition, maintain stability and steadiness, but quiver. Due to these disturbances of the Prāïā and unsteadiness in the Nāōēś, the food does not get properly digested. There arises
kujētvam (wrong digestion), Atijētvam (non-digestion) and Ajētvam over digestion). When this improperly digested food settles down in the body amidst such commotion it results in ailments of the psychosomatic type. For example when a person has to live with a difficult partner who has wrong habits he is subjected to constant psychological irritation. This repetitive emotional response which is uncontrolled speed of thoughts of anger and frustration starts disturbing sleep. This can be termed as stage 1 psychosomatic disease. This speeded-up response pattern that was confined to the Manomaya Koùa is now picked up by the Prāṇamaya Koùa. Prāi a starts flowing at an uncontrolled speed. This disturbs the supply of Prāī a to the respiratory and digestive systems. This shows up as increased and irregular pattern of breathing and digestion. If nothing is done about correcting the problem of this speed at the root level then it starts settling down in Annamaya Koùa as third stage of psychosomatic disease. If the person has a vulnerable back then it settles down as constant paraspinal muscle spasm. If the family tendency is for hypertension it settles down in the Annamaya Koùa as heightened sympathetic activity resulting in uncontrolled arteriolar muscle spasm. Thus habituated speeded up responses of emotions gets transferred to the body through the medium of Prāī a imbalance.

This understanding provides the model for recognizing the reversibility of the pathway by correcting this habituated speed at the root cause of the problem. All of us have an inbuilt capacity to increase or decrease the speed of our thinking. For eg. check the rate of flow of thoughts in the mind when you are sitting in a park enjoying the evening twilight. What would be the rate of flow of thoughts if you suddenly encounter a wild animal in front of you? It is not only the type of thoughts that change but it is the rate of thoughts that picks up speed that makes you capable of running away from danger. In this example we can see how this speed was a useful Manomaya Koùa response that helped you increase the
rush of Prāṇa to the limbs and made you capable of increasing the tone and activity in the muscles at Annamaya Koūa to help you escape from the physical danger. The stress pathway in human system appears to go through the same process in response to perceived danger of any type. Whether it is a response to chronic fear due to job situation or frustration due to unfulfilled desires when these responses become habituated, there occurs a habituated speeded up activity at Manomaya Koūa that gets into Prāṇamaya and then to Annamaya Koūa. This understanding is valuable because it provides the model of reversibility by operating at the Manomaya Koūa level. The aim of yoga therapy is to correct the involuntary habit of psychological responses to situations and exercise the inbuilt freedom to slow down at the mind level. Thus, yoga is a process of voluntary slowing of the mind.

Yoga is a trick to calm down the mind

Through this process of slowing down at the Manomaya Koūa which is the root cause one can reverse the speeded-up responses at the Prāṇamaya and the Annamaya level also. Once the mind goes on slowing down consciously and touches the bed of silence voluntarily with awareness one experiences the unbounded ananda of the innermost being, the Ánandamaya Koūa. Thus wakeful dwelling in Ánandamaya Koūa achieved through introspective silencing of the mind is the secret that unfolds the healing potential within.

2.8. State beyond mind as the healer within.

The scriptures talk about the experiential knowledge that consciousness is the state where there are infinite possibilities and healing and perfect health are possible.
2.8.1 Consciousness – Self from the Upaniṣads

Bāhadāraṇyaka Upaniṣad (I.iv.9) says that “The Self” which is experienced when the mind is quiet is indeed the Brahman or the universal consciousness and is the state of both happiness (ānanda sthānam) and the basic stuff of this universe (jagadūtpattī sthānam). As a jēva or a normal human being there is a veil of ignorance that covers this knowledge and we think that ‘I am the physical body’. This is due to the illusion or ignorance. This is portrayed by the example of ‘seeing a snake in a rope in a twilight and getting entangled in the fear of a snake’ Owing to this ignorance, the unlimited eternally free and blissful self superimposes upon itself the notion that it is not Brahman (adyāsa) and identifies with the limited self as a performer of actions by the body-mind complex and thus, ends up suffering with stresses, that arise out of it. The Upaniṣad goes on to say; whosoever realizes this truth becomes the happiness personified and also touches the bed of all possibilities. (brahmavit brahmaiva bhavati) In this state he develops the ability to tap the inner source of healing and can remain in eternal ānanda or bliss free from diseases (nirāmayāḥ)

2.8.2 State of Kaivalya according to Patālai jali

When the ignorance has been destroyed, this identification ceases. Then bondage is at an end and the experiencer is independent and free.
2.9. Therapeutic tools of IAYT

The disturbances in the Manomaya Koùa percolate into the physical layer (Annamaya Koùa) through the Präîamaya Koùa. Hence in the treatment of these psychosomatic ailments it becomes mandatory to work at all these levels of our existence to bring about quick results. The integrated approach, thus, consists in not only dealing with physical sheath, the relief of which could at best be temporary. It includes techniques to operate on different layers of our existence. Many practices described in the texts of yoga and upaniúads are adopted in IAYT to balance and harmonise the disturbances at each of the five koùas and tackle this type of complex psychosomatic ailments. The major part of all yoga texts consist of descriptions of how to reach the state of complete freedom from distress and disease, and live in eternal bliss and happiness under all circumstances of life. All these techniques can be classified under four major headings i.e. Rājayoga, jī ānayoga, Karma yoga and bhakti yoga. This section deals with the scriptural references for these techniques at these 5 levels.

Before proceeding to these practices several social behavioral norms are prescribed as preparatory lifestyle changes for a healthy living. These include Yamas and niyamas.

Yama is a set of ‘don’ts’ and Niyama: a set of ‘dos’. The basis of yama and niyama is to build congenial atmosphere - mandatory for success in any work.

यम नियमसन प्राणायाम प्रत्याहार धारा| क्यान वमाध्योपद्वायः फ्यानिः
" प यो 5 उ-२९ "

yama niyamāsana prañāyāma pratyāhāra dhārana dhyāna

samādhayo’ṣṭāval gāni || p.y.s 2-29 ||
Yama is abstention from harming others, from falsehood, from theft, from incontinence, and greed.

2.9.1 Practices at Annamaya kōu (the physical layer)

A healthy yogic diet, Kriyas, loosening exercises and Yogásanas are used to operate at the Annamaya kōu level and to remove the physical symptoms of the ailments.

(i) Diet

Sāttvic diet which is easy on the system is recommended by the Gītā. Sri Krishna describes it in the Čloka about lifestyle modification.

(ii) Kriyas - These are yogic processes described in Haōha Yoga to cleanse the inner organs of our body. They bring about the following effects (a) Activating and revitalising the organs, (b) Toning up their functions, (c) Desensitization and (d) Development of deep internal awareness. Among the major Kriyas enumerated in the texts of Yoga,
simplified versions of a few Kriyás like catheter Neti, Jala Neti, Kapálabháti, Agnisára, Vaman Dhouti (Kuí jal Kriyá), etc. are used extensively.

(iii) Physical exercises and Movements - Úthilikara a Vyáyáma

Very simple physical movements to mobilize and activate the affected parts of the body are used. Some easy physical exercises are adopted to fulfill the needs of the particular ailments to (a) loosen the joints (b) stretch and relax the muscles, (c) improve the power and (d) develop stamina. Most of the back pain special techniques are drawn from this group of practices.

(iv) Yogásanas - Postures

Yogásanas are physical postures often imitating the natural positions of the animals meant to mobilize and activate the affected parts of the body and make the mind tranquil. Yogásanas, when maintained for a while leads to revitalization and deep relaxation and mental calmness. The āsanas not only remove the disturbances of the body but also bring a person to a state of mental balance with a feeling of expansion. A large number of yoga practices available in the texts of yoga are adopted to balance and harmonise the disturbances at each of the five Koukas and tackle this type of complex psychosomatic ailments.

śthirasukhamāsanam || p yōṣ 5 || 8-46 ||

sthirasukhamāsanam || p.y.s 2-46 ||

prayatnaśaithilyānantasamāpattibhyām || p yōṣ 5 || 8-47 ||

prayatnaśaithilyānantasamāpattibhyām || p.y.s. 2-47 ||
2.9.2 Prāi amaya Kouns (The layer of Prāi a)

(i) Techniques of prāṇa mastery in healing- Praṇopaniṣad.

Prāi a is the basic life principle. Prāi áyama is a process for gaining control over Prāi a. The five manifestations of Prāi a and the corresponding most comprehensive definition of Prāi áyama in the human system are described in Praṇopaniṣad. Also the conventional Prāi áyama through regulation of breath is described therein. Through the practice of proper breathing, Kriyas and Prāi áyama, we start operating on the Prāi amaya Kouns. Suitable types of Prāi áyama and breathing help to remove the random agitations in Prāi ic flows in the Prāi amaya Kouns. Thus, the ailments are handled at this Prāaámaya Kouns level.

(ii) The Prāi a energy model. All living beings are born with a stock of Prāi a shakti sufficient for one life time. We spend a quantum of Prāi a daily to carry out our activities. When we carry out activities a balance between the quantity of Prāi a drawn and spent is necessary for health. The amount of Prāi a that is drawn and used up in subtle areas of the brain decides whether we are happy or unhappy. If there is excessively speeded up mind it draws too much Prāi a and does not spend enough. This results in accumulation of Prāi a which needs to be released through some form of physical activity. For eg. if we are terribly depressed due to demise of a kith and kin repetition of thoughts of missing the diseased draws excess energy to the brain area. Thus the Prāi a drawn (Pd) is too much and Prāi a spent (Ps) is too little and the load of the residual Prāi a that accumulates (Pa) is responsible for the heavy feeling. Thus Pa is responsible for feeling of the bursting
pressure in the head. When you cry you release some of this unspent energy from the Pa and this leads to a big relief. Let us see this in this formula.

\[ Pd (Práï a drawn) = Ps (Práï a spent) + Pa (Práï a accumulated). \]

For eg 3000Pd = 2000Ps + 1000Pa. This residual Pa (energy accumulated) is responsible for duůkâ or tension. The vice versa is true for the experience of happiness through sense pleasures. When we eat a sweet dish or listen to a good music or dance (Viñya Viñyi Sambhoga) the balance is reversed and we feel happy. Here the formula may be represented as 5000Pd = 5000ps + 0Pa. This negative balance of Ea leads to a feeling of freedom in the brain areas which is experienced as pleasure. Thus, sense pleasures drain away our energy. But it is temporary and can promote early aging because of draining of large quantities of Praia. Pain could increase Pd and Pa. Sleep could decrease Pd and Pa. From this we may say that a healthy longevity can be achieved by lesser Pd and Pa in balance. Yoga trains to develop mastery over this Práïa management. The technique is slowing down the breathing, relaxing the body and calming down the mind. Once this mastery is achieved through awareness there occurs enormous joy because of the freedom to manipulate the Práïa at will. One can develop complete freedom from pain by using these Práïáyáma techniques.

2.9.3 Practices at Manomaya Koũa (The mental layer)

2.9.3.1 Pataï jali’s Kleça Tanukaraṇa Model

Pataï jali points to this state of eternal bliss and all possibilities by the model of ‘kleça tanukaraṇa’- softening of the disturbed functions of the mind (kleças). Kleças are hardened habits due to the uncontrolled speed of the mind. Hence he recommends softening (tanukaraṇa) through slowing down (prayatna āithilya) and expansion (ananta
samapāti) at all levels. Yoga texts recommend cleansing of the mind and body to aid in subtle practices of meditation that helps in achieving the state of Kaivalya. Slowing down of the breath through Prāī áyāma (Çvāsa praçvāsayoh gati vicchedaù - reducing the rate of breathing) and slowing down of the mind through meditation (pratyaya eka tānatā dhyānam – p.y.s. 1.3.2. effortless dwelling on a single thought is meditation) leads one to get in touch with the deeper aspects of subtle possibilities.

2.9.3.2 Pataï jali’s antaraï ga yoga model

This leads us through the steps of dhāraṇā dhyāna and samādhi to sāà yama for acheiving mastery over the laws of cell cycle. A direct operation on the mind is made possible by the last three limbs of Aññii ga Yoga of Pataï jali - Dhāraïa, Dhyāna and Samādhi. The culturing of mind is accomplished by focussing of the mind (Dhāraïa) initially, followed by relaxed dwelling of the mind in a single thought (Dhyāna) for longer and longer durations leading ultimately to superconsciousness (Samādhi). A progressive habituation allows the mind to remain relaxed during the period of meditation (Dhyāna). This has been demonstrated through scientific research on Transcendental Meditation, a simple standardized technique of dhyāna. Its application to treat many psychosomatic ailments has become popular.

तत्र प्रत्ययैकतानता ध्यानम् || प यो ५ ५-२ ||
tatra pratyayaikatānata dhyānam || p.y.s. 3-2 ||

Pataï jali goes on to describe the practices of higher states of consciousness called samādhis in which one starts developing mastery over the basic reflex responses as well as the basic laws of nature. Becoming one with the seen is Samādhi.
*Samādhi* is the jump. *Samādhi* is the way to bliss. It is expansion from one level to the next, characterized by bliss, expansion, lightness, knowledge, deeper perception, power and greater creativity. There is unparalled bliss of *Samādhi*.

The key to a stress-free life is *anusandhāna* which has built in features of *Dhāraṇā* - total concentration on the job,

\[ \text{deśabandhasyaścittasya dhāraṇā } \text{ p.y.s. 3-1} \]

*Dhyāna* - effortless way, *Samādhi* - the blissful way. Whatever may be the difficulties and problems one faces, the yoga way of living becomes an anchor in our life. It brings about practice of equanimity in states of misery and happiness. This leads to the mastery over all the senses and emotions thus leading to a stress - free life.

### 2.9.3.3. Emotion Culture

To handle and gain control over the basic cause for mental Agitations we use the Yoga techniques that control our emotions:

#### 2.9.3.3.1 Bhakti yoga – Bhāva Samādhi – model.

Emotions are part of our nature prior to intellect. Emotional turmoil influences the health more than any thing else. Emotional strength is the most important strength.

Our emotions can be two categories soft and violent. Can we use emotions to go to peace of mind? It is the science and art of emotional upliftment and spiritual unfoldment. It is purifying and uplifting. To handle and gain control over the basic cause for mental agitations, we use emotion culture using sessions of devotion containing prayers, chants, *bhajans*, *nāmāvalis*, *dhuns*, *stotras* to build a congenial atmosphere to evoke, recognize, attenuate and dissipate emotions. One’s emotions are raised to a heightened level of
transcendence that the healing from within manifests. Thus control over emotions is obtained through devotional sessions. The emotional imbalances and upsurges are eliminated by such control. Kāma to Prema and to Bhakti brain researchers have found that the right lobe of the brain is the seat of emotions, creativity, etc. which we have been calling as the “heart”. The “head” representing the intellect has its abode in the left lobe of the brain. Modern science has helped to develop the left brain but the right is grossly neglected. This lopsided growth is at the base of most of the modern ailments and increasing unrest and decreasing quality of life. Thus, harnessing the right brain has become very necessary. Bhakti yoga or the Yoga of devotion aims to fill this need. This science of emotion culture develops the right brain, purifies the emotions and elevates man to experience ecstatic bliss of Divinity. The devotional songs harness the emotional personality through the science of emotion culture by invoking, amplifying and diffusing the emotions. Through release of emotional suppressions you can achieve better health, i.e harmony growth of head and heart, and great bliss.

2.9.3.3.2 Physiology of Emotions

In thinking, changes are confined predominantly to the skull region. When any thought persists, it intensifies, triggering the centres of emotions in the right brain and limbic cortex. This discharges nerve impulses that activate the sympathetic nervous system and also releases hormones that are transmitted through the blood stream. This in turn sets off a series of chain reactions resulting in widespread physiological changes.

The emotions are thus felt all over the body such as tears in the eyes, choking in the throat, rushing of blood to the face, gooseflesh, etc. At their termination the nervous system slowly returns to normal. The changes due to emotions or feelings are more intense and lasting compared to mere thinking.
2.9.3.3.3 Káma, Prema and Bhakti

Love is one of the most powerful emotions manifest in all beings. At its grossest level it projects itself as lust. This Káma is insatiable and energy-sapping. Its effect is like a tempest after sunset. Selfishness reigns supreme in this. But Prema (pure love) is elevating. Its gentle spring always remains fresh. Featured by Tyága (sacrifice), the lover finds his happiness in that of his beloved. “Tat Sukha Sukhitvam” N.B.S: 24 is the formula, says Nárada. Much greater is the bliss of Prema compared to the joy of Káma. Bhakti is Prema (love) with total surrender. With the “Úrañágati” of himself and his ego at the feet of the Lord, man merges himself into his Lord culminating in sákñätkära. In this state, the Bhakta experiences an ecstatic bliss.

2.9.3.3.4 Sing with Bháva

Songs in devotional sessions are aimed to tune the heart-strings towards a self-elevating Bhakti bháva. Come, join the group, sing aloud. This is the way to purify your emotions and grow towards perfection or Divinity. In training the right brain, it is the Bháva (attitude) that matters more than mere words. That is why hymns, whatever be the language, have universal appeal. There is a heavenly rhythm, a harmony and a melody in every sound and sigh. If these are fine-tuned with Prema and Bhakti, one reaches the heights of happiness - the zenith of ecstasy. Sing loudly with the group; sway with the sound. Let your heart melt, let tears roll down your cheeks freely; let go all your feelings without inhibitions. You feel light in the head. Your emotional suppressions diminish, diffuse and vanish like clouds before sunshine. You come out of the session with a lightness of heart and the gloom of unknown sorrow changes into a bright gleam of joy. The world appears a better place. Serve others too with this elixir of happiness by emotion culture.
2.9.4. Vijñānamaya Kṣūa (The layer of wisdom)

Questioning attitude and logical thinking is the key to operate from Vijñāna maya Kṣūa. Upaniṣads are the treasury of such knowledge which is the redeemer of all miseries and obsessions. It is the lack of inner jī āna which is responsible for many wrong habits, agitations, etc. This is also the purpose of jī āna yoga which includes steps such as Čravaēa Manana and Nididhyāsana. Čravaēa is listening to the right knowledge, Manana is cogitating about it and Nididhyāsana is incorporating it into the system. The secret for happiness, therefore, is conquering of the agitation of mind through knowledge. Once the mind is calm through the logic of knowledge, the understanding becomes deeper and goes beyond the logic and one is able to handle the stressors in a healthy way.

Different Upaniṣads use different models (prakriyās) and techniques (upāsanās) to purify and prepare the mind for this knowledge (Jñana). In this state of Jñana of the true nature of the universal self the seeker experiences unlimited happiness and complete freedom from distress.

2.9.4.1 Taittirīya Upaniṣad

This provides two models to move towards realization of the truth.

2.9.4.1.1 Paï ca kośa Viveka model.

It is a search for the basic principle of this creation. We have seen earlier how Taittirīya upaniṣad brings out this model of Paï ca kośa Viveka wherein Bhṛgu was able to reach this state of anandamaya kosa through guided tapas by his father Varuna.
2.9.4.1.2 The Happiness Analysis model or Ánanda M āmāsā

This handles the most fundamental problem relevant to all living creatures. Search for happiness is instinctive to sustain creation and to avoid fear and death. It is essential to move towards bliss and overcome misery. The analysis systematically leads the student to that substratum from which Prāï a and mind emerge - the Ánandamaya Koùa. It leads to the realisation that happiness is within and ‘each one of us’ in our causal state is ‘Ánanda’ embodied. As a result, man’s outlook in life changes. Knowledge burns the strong attachments, obsessions, likes and dislikes which are the basic reasons for the agitations of mind. The Sára type of Ádhis can only be removed by this knowledge (Átma-ji ána or Self-realisation). The aim of life is within you. Happiness is not in the object of enjoyment. This is shown in the

1. Law of diminishing returns.
2. It varies from person to person.
3. Happiness is there with or without it.
4. Depends on one’s mood.

Is happiness concentration of the mind? No. Happiness is an inner state. It is an inner silence that is a state of being. Sense objects only give temporary glimpse of Ánanda.

2.9.4.2 Avasthātraya Viveka model

Māēdukya Upaniṣad does this through the model of examination of the three states of consciousness i.e. the wakefulness (jāgrat), dream (svapna) and deep sleep (suñhupti) states. A systematic analysis leads the seeker to realize the continuity of the background screen state (turēśa) which is the wakeful awareness that pervades all these states and helps him to dwell in that unchanging eternally blissful state.
2.9.4.3 Gunatita model

The Bhagavadgītā talks about the 3 guēas and that we and our actions are an interplay of the guēas. We could be lethargic when the tamas is predominant in us, active and aggressive when the rajas is predominant in us and benevolent when the sattva is predominant in us. The Gītā advices us to go beyond the guēas and reach the guēāśā sthiti where one is not affected by the interplay of the guēas and one can handle the ups and downs of life without stress. (Gītā 4-20, 3-19)

2.9.4.4 Indriyātīta charioteer model

Kaöha Upaniṣad describes the way to our stress-free life. The secret is to keep our senses under control and disciplined so that one can lead a life without excesses.

They call the organs the horses: the organs having been imagined as horses, (know) the objects as the roads. The discriminating people call that Self the enjoyer when It is associated with body, organs and mind.

कठ उप १-३- ४।

They call the organs the horses: the organs having been imagined as horses, (know) the objects as the roads. The discriminating people call that Self the enjoyer when It is associated with body, organs and mind.

वस्त्रविर} अवान्मचल्यायुक्तेन मनसा सदाः

They call the organs the horses: the organs having been imagined as horses, (know) the objects as the roads. The discriminating people call that Self the enjoyer when It is associated with body, organs and mind.

कठ उप १-३- ५।

They call the organs the horses: the organs having been imagined as horses, (know) the objects as the roads. The discriminating people call that Self the enjoyer when It is associated with body, organs and mind.

कठ उप १-३- ५।
If the intellect is incapable of discriminating between right and wrong and is also connected with an uncontrollable mind, it is like a charioteer who has to deal with uncontrollable viscous horses.

The man, however, who has as his charioteer a discriminating intellect, and who has under control the reins of the mind, attains the end of the road: and that is the highest place of Vishnu.

2.9.5 Ánandamaya Koúa (the layer of bliss)

To bring the bliss of our causal body (Káraï a Úarèa) called Ánandamaya koúa in all our actions is the key for a very happy and healthy life. This also brings our innate healing powers to effect, a complete cure of our ailments. The techniques used come under the heading Karma Yoga, the secret of action. The secret lies in maintaining an inner silence, equipoise at the mental level as we perform all our actions. Normally we get upset, or excited over things which we do not like or we like. But we have to learn to maintain equipoise (samatva). The next step is to have a deep silence and a blissful awareness in the inner subtler layers of our mind while we are in action. This is accomplished by self-awareness, constant drive to change oneself and auto-suggestions. To recognise that `I am getting tensed' is the first step. Correct by withdrawing to the inner compartment of total bliss, peace and rest. Remember this by repeated inner silence several times in the day. Retain a smiling relaxed face during all the yoga practices.
Karma yoga –

*Karma yoga* is a total tool for having a stress-free life. A change in attitude helps us to function better in our work environment. All the stress associated with our work environment could be handled by it. Work as worship can enhance the level and quality of our work and there by elevate our mundane day to day work to the level of spiritual enhancement. Using work as a tool for our transformation. For more efficiency ease and effortlessness. How do we maintain peace of mind in all conditions at work. The answer is *karma yoga* - Peace, harmony and satisfaction.

\[
\text{tasmād asaktah satatāṁ kāryāṁ karma samācara} | \\
\text{asakto hyācarankanarma paramāpnoti pūrṣaḥ} | | \text{gitā} 3-19 ||
\]

*Therefore, perform action always without attachment. For by working without attachment a man attains the Supreme.*

\[
\text{karmanyakarma yaṁ paśyedakarmanī ca karma yaḥ} | \\
\text{sa buddhimanmanuṣyesu sa yuktah kṛtsnakarmakṛt} | | \text{gitā} 4-18 ||
\]

*He who sees work in ‘no- work’ and ‘no work in work’, he is wise among men.*

Even while doing all work, he remains established in Yoga. *Karmayoga* techniques are used to bring the bliss and happiness of *Ānandamaya Kōṇa* into all activities of their daily life. The general nature of us is that either (a) we want to escape work or (b) we get lost
in work, often getting obsessed with work and turn workaholics leading to large tensions and stresses or (c) we maintain moderation in our work habits, think of helping others or involve in national constructive works or humanitarian services etc. Initially we alternate phases of relaxation, slowing, calming and silencing with work. Gradually we start learning the art of working in relaxation. As we learn the science of deeper relaxation through dynamic relaxation process as cyclic meditation, we learn the art of working in blissful awareness. The inner cleansing starts and the deep seated stresses, blocks, knots, obsessions, phobias, etc will all come out from the subconsciousness level paving way for manifestation of the divinity within us.

Hardly do we realize the importance of silence at the mental level, slowing of breath at Práía level and relaxation of groups of muscles at the body level. and much less the experience of bliss. When we start understanding the role of each of the above and start using them regularly the happiness in our life starts blossoming. The positive health can now be called blissful health. And that is the way of Ánandamaya Koùa.

These techniques would help our patients with CLBP to achieve a total cognitive and physical changes at all levels.

The schematic fig depicts the model of Pratiprasava (returning to basic nature of perfect balance) as described in yogic texts for patients with CLBP to return from painful state to complete freedom from pain and disability.
2.10 *Taittirīya* model of *Pratiprasava* through *Paï ca kośa viveka*.

Techniques of yoga at *five kośas* to return to total health

Fig 2.3 Process of *Pratiprasava* of CLBP

| State of freedom from distress - Ṛnandamaya kośa - perfect health |
| State of freedom from distress - Ṛnandamaya kośa - perfect health |
| -----always untouched by any disease |

**Remedy – Ṛnandamaya kośa**

- right knowledge – *Sat cit ānanda*
- blissful awareness during meditation
- total silence - the innermost observer blissful awareness during action

**Remedy- Vījī ānāma ya koṣa**

- Knowledge – happiness is silence
- knowledge of ‘I am that’

**Remedy- Manomaya kośa**

- *Dhyāna* - slow down the number of thoughts per second
- Effortless chanting of mantra, meditation on expansion

**Remedy- Prāṇamaya kośa**

- Reduce prāṇa speed – slow breathing
- diffuse prāṇa constriction- let go

**Remedy- Annamaya kośa**

- relax –QRT, DRT, meditative postures--prayatna ċaithilya
- stimulate followed by let go-āsanas , Kriyās - ananta samāpatti