



YOGA THERAPY FOR SPORTS PERSON

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ABSTRACT

Background: For splendid sports career, elite level of physical fitness & its maintenance is needed for excellence in performance. Perseverance is essential to continue sports career throughout a longer period of life. Balancing performance & health is a great challenge for players and the coaches. Researcher has worked on exploration of concept of Balopāsānā from Sanskrit literature to the present relevance of sports medicine. It involves development holistic fitness modules based on ancient principles of Balopāsānā from Vedas, Ayurveda and Yoga shastra. In this article role of yoga in holistic fitness development of sports persons will be discussed. Yoga is described as comprising a rich treasure of physical & mental techniques that can be used to create physical & mental well-being.

Materials and Methods: 60 male professional footballers aged between 15 to 25 years were subjected to 12 weeks regular Yoga practices (90min/week in two sessions) Written Feedback was collected from players. Coaches and technical experts were interviewed. Observations of coaches & experts were also collected and analyzed.

Results: Positive impact on physical and psychological health of football players is observed.

Conclusion: Yoga therapy is useful in development of holistic fitness of football players.

KEYWORDS: Yoga therapy, holistic fitness, sports persons.

BACKGROUND

For splendid sports career, elite level of physical fitness & its maintenance is needed for excellence in performance. Perseverance is essential to continue sports career throughout a longer period of life. Athletes strive through regular strenuous training sessions to attain it. This causes excessive wear & tear of the body which may lead to many ill effects like exercise induced oxidative stress & heart diseases. Hence along with performance, it is necessary to maintain health & longevity of vital organs. This becomes a great challenge for athletes & coaches. The researcher, who is an Ayurvedic physician & Yoga therapist working in the professional sports field, feels that, these Indian traditional sciences will enable better performance in sports. Since, Ayurveda is science of life that provides comprehensive knowledge about all aspects of life. It is primarily aimed for health & longevity. Researcher has worked on exploration of concept of Balopāsānā from Sanskrit literature to the present relevance of sports medicine. It involves development holistic fitness modules based on ancient principles of Balopāsānā from Vedas, Ayurveda and Yoga shastra. In this article role of yoga in holistic fitness development of sports persons will be discussed.

Yoga is described as comprising a rich treasure of physical & mental techniques that can be used to create physical & mental well-being. Mind is believed as connecting link between physical gross body and subtle body (Ātmā /intellectual abilities). Mind is the mediator of knowledge.

लक्षणमनसोज्ञानस्याभावोभाव एव च ।

च. शा. १



It means without presence of mind the process of knowledge is not complete. Mind is subtle and only one. Functions of mind are described in Āyurveda as

इन्द्रियाभिग्रहः कर्ममनसः स्वस्य निग्रहः ।
ऊर्होविचारश्च, ततः बुद्धिं प्रवर्तते ॥

च.शा.१/२१

Mind controls the physical body, sensory motor functions of sensory organs (indriya), controls of self and serves to choose between multiple choices where intellect is directed for action. For this faculties of mind are thinking, selection of one thought by reasoning, goal setting, desire, planning of actions, commitment etc.

चिन्त्यंविचार्यमुह्यं च ध्येयंसंकल्पमेव च ।
यत्किञ्चिन्मनसो ज्ञेयं तत् सर्वव्यर्थसंज्ञकम् ॥

च. शा. १/२०

Mind is the mediator and controller between of thought and actions. Though ātmā decides the actions but it is not able to act, in association with mind and intellect ātmā is able to direct actions. In this way mind, body, self all are in closest association which is the reason of involvement of mental factor in all bodily actions.

नित्यानुबन्धं मनसादेहकर्मानुपातिना ।
सर्वयोनिगतं विद्यादेकयौनावपि स्थितम् ।

च.शा.१/१४

Mind plays an important role in disease production. Many of the time wrong actions are leading towards diseases which are called prajñāparādha. It is caused due to wrong actions of mental faculties leading to excessive or wrong actions by senses and body

धीष्टुतिस्मृतिविभ्रंशः संप्राप्तिः कालकर्मणाम् ।
असात्म्यार्थागमश्चेति ज्ञातव्या दुःखहेतवः ॥

च.शा. १/१८

धीष्टुतिस्मृतिविभ्रष्टः कर्म यत्कुरुतेऽशुभम् ।
प्रज्ञापराधं तं विद्यातसर्वदोषप्रकोपणम् ॥
उदीरणगतितमतामुदीर्णानां च निग्रहः ।
सेवनंसाहसानां च नारीणां चातिसेवनम् ॥

च.शा. १/१०२.१०३

In case of sports persons proper consumption of exercise rest and lifestyle measures is very important in terms of maintaining performance, fitness and longevity. Mental faculties play very important role in this discipline, commitment and desire of achievement of goal. Due to mental influence distractions happen and which leads to decrements in strength, performance and health management of athletes' lifestyle. Hence for effective planning of YuktikṛtāBala (Balopāsanā) inclusion of mental faculties becomes crucially important. For this Āyurveda has suggested Naiṣṭhikīkītsā for effective management of treatment.

युक्तिमेतांपुरस्कृत्यं त्रिकालावेदनाभिषक् ।
हन्तीत्युक्तचिकित्सातुनैष्टिकी या विनोपधाम् ॥

च.शा. १/१४

वेदनानामधिष्ठानं मनोदेहश्चसेन्द्रियः ॥

च.शा. १/१३६

आत्मैन्द्रियमनोर्थानांसन्निकर्षात्प्रवर्तते ।
सुखदुःखमनारम्भादात्मस्थेमनसिस्थिरे ॥
निवर्ततेतदुभयं वशित्वंचोपजायते ।
सशरीरस्य योगज्ञास्तंभोगमृषयोः विदुः ॥

च.शा. १/१३८.१३९

Mind is the seat of pain. Close association of body, senses, mind and self (Ātmā) is the reason of positive (sukha) and negative (dukhah) things. With the help of Yoga mind can be retracted from distractions

and the pain can be relieved. It is called bodily Yoga which is able to create specific powers in a person. It involves desire to achieve goals.

योगिनांबलमैश्वरम् ।

शुद्धसत्त्वसमाधानात्तत्सर्वमुपजायते ॥

च.शा. १/१४०

मोक्षोरजस्तमोऽभावाद्बलवत्कर्मसंक्षयात् ।

bodily Yoga (Sasharir Yoga) can be achieved with the help of reduction of mental doṣa Raja and Tama and improvement of Satva guṇa. Review of literature of Yoga reveals the role of physical strength in spiritual journey of liberation (mokṣa). Role of mind in bodily actions and process of knowledge, disease prevention, disease creation, and holistic treatment of diseases is explained. With the help of these principles, we establish the holistic concept of Balopasa inclusive of Āyurveda and Yoga principles.

Now we will explain the practical implications of Yoga principles in Balopāsanā of sports persons. Yoga principles include Eight steps.

- | | |
|--------------|---------------|
| 1) Yama | 5) Pratyāhāra |
| 2) Niyama | 6) Dhāraṇā |
| 3) Āsana | 7) Dhyāna |
| 4) Prāṇāyāma | 8) Samādhi |

Out of these eight steps first five steps from Yama to Pratyāhāra is called Bahiramga yoga which deals with physical stability, Dhāraṇa, Dhyāna, Samadhi is called Aṃtaramga yoga which helps mind for achieving intellectual stability for liberation. Now we will explain the practical implications eight limbs of yoga for sports persons.

1) Yama- Universal moral commandments

Yama includes (ethical disciplines) the great commandments transcending creed, country, age and time. They are ahimsā (no violence) satya (truth), asteya (non-stealing) Brahmacharya (incontinence) and aparigraha (non-coveting). These commandments are the rules of morality of society and the individual which if not obeyed bring chaos, violence, untruth, stealing, dissipation and covetousness. The roots of these evils are greed. Attachments and desire which in excess are not good and cause pain. These commandments or ethical disciplines help to enhance morality of the player which is required in the sports field and society to maintain fair play, ethical principles and integrity of the field. With the help of these principles incidences of cheating, doping, match fixing can be reduced, and spirits of sports field can be maintained high keeping fair competitive spirits intact.

2) Niyama:

Niyama are the rules of conduct that apply to individual discipline. It includes

- 1) Śauca (purity)- purity of body and mind.
- 2) santoṣa- contentment
- 3) Tapas-Austerity
- 4) Svādhyāya – self study
- 5) Íśvara praṇidhāna- Dedication to the lord.

Śauca includes disciplines of lifestyle like Āhāra, vihāraetc as explained earlier. Contentment must be achieved hence removing jealousy (matsar) about opponent. Contentment helps sports person to focus on self-performance and improvement.

Tapas refers to efforts, sincere hard work to achieve goals. It is of three types kayika (bodily), mānasika (mental) and vācika (speech) Sincere and regular practice of Physical exercise along with positive attitude and positive talk helps sports person to work efficiently in training and competition to achieve best of them.

Svādhyāya (self-study): With the help of self-study sports person can analyse his own work and learn to reduce his mistakes to enhance performance.

Íśvara praṇidhāna means dedication to the lord, nature, teacher. This principle makes a sports person better student and reduces the ego.

Thus, yama Niyama helps sports persons to become moral, sincere, ethical professionals.

3) Āsana:

स्थिरसुखमासनम् । प्रयत्नशैथिल्यानन्त्यसमापत्तिभ्याम् ।
ततो द्वंद्वानभिघातः ॥

प.यो.सू. साधनापाद ४६.४६

The third limb of yoga is Āsana (posture). Āsana brings steadiness, health, lightness of limbs. A steady and pleasant posture produces mental equilibrium and prevents fickleness of mind. Āsanās are not merely gymnastic exercise, they are postures. Initially it is the body that performs Āsanās, because mind, intelligence being intangible need to be conceived and require sensitivity whereas body can be perceived since it is tangible and visible. Āsanās effect not only on the body but also on breath, mind, emotions, awareness and intelligence.

Now a day's sportspersons tend to associate with Āsana for acquiring flexibility, but it offers more than that. With regular practice of Āsana one can develop endurance, flexibility agility, balance, great vitality, awareness and control over body and mind. Dualities like gain and loss, victory and defeat, fame and shame, body and mind vanish through mastery of Āsana. Journey of liberation requires physical stability and disease-free state of the body for achieving control over mind. In the same way for physical performance mind plays crucial role. For professional success in any sports, one need to be not only physically fit but also mentally alert, technically skilled, focused, committed, emotionally strong and stable and motivated.

Āsana help athletes to achieve physical and mental fitness facets altogether.

4) Prāṇāyāma:

तस्मिन् सति श्वासप्रश्वासयोगेतिविच्छेदः प्राणायामः ॥

प.यो.सू.४९

Prāṇa means breath, respiration, life, vitality, energy and strength. It is the connecting link between body and mind. The word āyāma means length, expansion, stretching or restraint. Prāṇāyāma connotes extension of breath and its control.

In Haṭhayoga pradīpikā it is mentioned that

चलेवातेचलम् चित्तम् निश्चलेनिश्चलम् भवेत् ।

It means consciousness or citta moves where the breath moves. If the breath is steady, the mind and consciousness are steady. Emotional excitement affects the rate of breathing equally. Deliberate regulation of breathing checks emotional excitement. As the very object of yoga is control and still the mind, controlling and mastering breath is the best way. This enables to control body, and senses. Once mind is under control, senses, intellect can be managed since the mind is the connecting link Physical exercise is associated with increase in the rate and depth of breathing to increase ventilation of lungs and increase cardiac output. These cardio respiratory adjustments ensure adequate delivery of oxygen to active muscles. During exercise oxygen demand of working muscles is increased which is supplied by circulatory system. Prāṇāyāma performed according to technique can improve oxygen concentration of blood as no other exercise. Prāṇāyāma train the respiratory apparatus to carry respiration efficiently and to absorb larger quantities of oxygen throughout the day. Thus, yogic practices of Prāṇāyāma improve functioning of cardio respiratory system enhance cardio – respiratory endurance which is the most important fitness factor as other factors of fitness are dependent of cardio respiratory endurance.

In this way Prāṇāyāma helps athletes in physical and mental, emotional and intellectual planes. It gives steadiness of body and mind required for further concentration and control over senses.

5) Pratyāhāra:

स्वाविषयासम्प्रयोगेचित्तस्वरूपानुकारेऽन्द्रियाणाम् प्रत्याहारः ॥
ततः परमावश्यतेन्द्रियाणाम् ॥

प.यो.सू.

When the mind is withdrawn from sense objects, the sense organs also withdraw themselves from their respective objects and thus are said to imitate the mind. This is known as pratyāhāra. It gives complete mastery over senses.

If a man's reason succumbs to the pull of his senses, he is lost. On the other hand, if there is rhythmic control of breath, the senses instead of running after external objects of desire turns inwards and a man is set free from their tyranny. When this stage is reached a person is able to focus, concentrate and start self-examination and self-analysis.

Sports persons need concentration, self-analysis and desire to achieve their goal by maintaining consistency of practice. For this they have to overcome the deadly but attractive spell of sensual objects. In this way, āsana and Prāṇāyāma help sports person to achieve pratyāhāra which makes athletes focused and his mind becomes able to hold this focus on his goal. It leads to further steps of concentration (Dhāraṇa) meditation.

6) Dhāraṇa:

देशबन्धश्चित्तस्य धारणा ।

प.यो.सू.

Dhāraṇa means binding the mind to one place. When the attention of the mind is directed in a single stream to a chosen field without being distracted, it is called as Dhāraṇa (concentration). Place means mental or physical spot. Dhāraṇa means confinement of the mind to one point, object or goal.

When the body has been tempered by Āsanas, mind is refined by the fire of Prāṇāyāma and when senses are brought under control by pratyāhāra, the person is able to concentrate his mind on one goal or object. Without concentration one cannot master anything. Hence to achieve concentration 'eka tattva abhyāsa' (focus of one object) is recommended.

Any sport requires tremendous concentration. The mind of player must focus on the target. For example, football forwards have to focus on goalpost overcoming all the distractions of noises of crowd, deflections of opponent defenders etc. He is like Arjuna in the Mahābhārata who mastered archery to such an extent that he could target and hit the eye of a moving bird.

Concentrating on Aum, imagery of tactical practices help athletes to achieve concentration needed in sports. Helps to bring excellence in a skill and perfection in actions.

7) Dhyāna and Samādhi:

तत्र प्रत्ययैकतानता ध्यानम् ॥

तदेवार्थमात्रनिर्भासंस्वरूपशून्यमिव समाधिः ।

प.यो.सू.

Uninterrupted stream of the content of consciousness is dhyāna. When there is no break in Dhāraṇa it is called as dhyāna. When the state of dhyāna progresses further, one forgets the consciousness of self and can only see the object. This stage it is called Samādhi. It should be noted that Dhāraṇa, Dhyāna, Samādhi are progressive stages of concentration. All these together are called 'samāyama'. It contains two parts 'sama' means perfect and 'yama' is control. It means mastery over physical and psychological processes.

It is needed in sports to achieve excellence, perfection and the best performance. These abilities make a player outstanding from others. For example, there are many players involved in game of football who can bring the ball towards the goal but very few players can outclass and convert it into goal.

Thus, Yoga practices of Āsana, Prāṇāyāma, meditation help athletes to achieve physical, mental, intellectual abilities required for being successful ethical professional athlete. We have examples of Sachin Tendulkar, Rahul Dravid, Sourav Ganguly who have been practicing Yoga principles in training.

Yoga research has generally indicated a positive impact on a variety of outcomes, much of researches are focused on diseases, rather than fitness related outcomes. Previous health & physical fitness related yoga research studies suggest that yogic practices improve cardiovascular endurance & overall physical fitness of healthy young untrained population. Some of these studies were directed to compare the effects of Yogic practices with physical exercise. These studies show inconsistent results of comparison & are a subject of type, frequency & intensity of yogic intervention.

Looking at the above studies the researcher has done survey study to explore the effectiveness of Yogic practices along with physical education. Researcher aims to incorporate Yogic Practices into physical

conditioning of athletes and observe its impact on their health and components of fitness. It is explained as follows,

Title: The Role of Yoga Practices in the Development of Health of Football Players: A Practice Based Qualitative Study

Objectives:

- To study the qualitative effects of regular Yogic Practices on physical & psychological health of football players.
- To understand the perspective of football players towards regular yoga practice

Materials and methods

- 60 male professional footballers aged between 15 to 25 years were subjected to 12 weeks regular Yoga practices (90min/week in two sessions)
 - Yoga Practices including
 - ✓ physical postures (Āsanas),
 - ✓ Sun Salutation & its modifications
 - ✓ voluntary regulated breathing (Prāṇāyāma),
 - ✓ Omkar & meditation techniques
 - Written Feedback was collected from players
 - Coaches & technical experts were interviewed
- Observations of coaches & experts were also collected and analyzed.

Observations:

Table 1: Observations of effects of Yoga practices on Football Players

Type of effects	Qualitative Effects observed	Percentage score%
Physical	Relaxation	58
	improved stretching/Flexibility	52
	Improved Balance	22
	Improved Breathing capacity	32
	Reduction in muscle soreness	13
	Hunger	2
	Sleep	13
	Recovery from training	22
	Improves strength	7
	Reduction in Fatigue	8
Psychological	Relaxation	60
	Concentration	37
	Positive mood changes	38
	Boring	12
	Sleep	12
	Recovery from training	15
	Reduction in Stress	12
	Reduction in Fatigue	8
Motivation	8	

Figure 1: Observations of physical effects of yoga practices

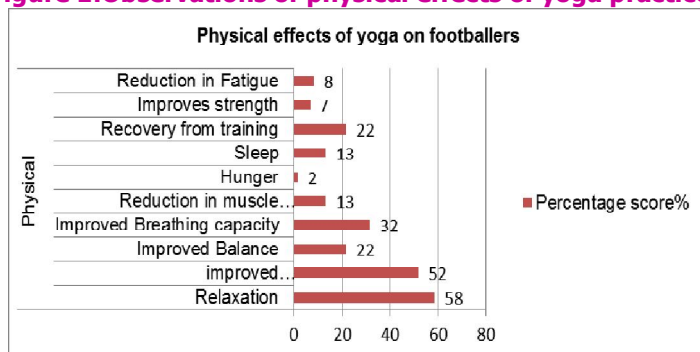
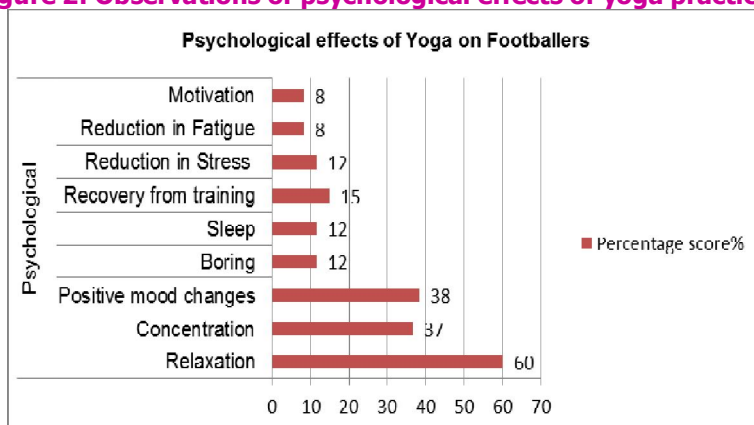


Figure 2: Observations of psychological effects of yoga practices



Discussion:

➤ **Effect of Āsanas on Cardiorespiratory System:**

- Bhujangāsana, Shalabhāsana and Dhanurāsana alternately exert an increased pressure on the heart & same thing is done by the first stages of Sarvangāsana, Viparitkarniand Halāsana.
- Alternate increase & decrease in pressures brought about by Āsanas promote a healthy heart & thus add to the efficiency of the circulatory system to supply fuel & oxygen.

➤ **Role of Prāṇāyāma in Physiological Adaptations for Physical Exercise:**

- During physical exercise oxygen demand of working muscles is increased, which is supplied by circulatory system. The quantity of oxygen, the blood can carry, mainly depends upon efficiency of respiratory system.
- Prāṇāyāma performed according to the technique can improve the oxygen supply of blood as no other exercise. Prāṇāyāma exercises train the respiratory apparatus to carry respiration efficiently & to absorb larger quantities of oxygen throughout the day.
- In Kapalbhāti, vibrations are generated and spread out in nearly every tissue of human body, the arteries, veins, capillaries are included. Thus, circulatory system is exercised & massaged during Prāṇāyāma& prepared for efficient functioning.

Effect of Yoga on Flexibility & Strength:

Release Tight Fascia and Increase Flexibility

Heavy training loads without adequate stretching can result in a loss of range of motion around joints as muscles become tight. This may result in a reduction in mechanical efficiency and cause muscular imbalances that reduce speed, power, balance and agility, and increase the risk of injury. Specific yoga postures improve flexibility by moving the body through a range of dynamic and static stretches that encourage a relaxation response in muscles and fascia, restoring joint range of movement.

Strength

Yoga poses require functional muscular effort. Integrated body movements are encouraged, including core control, as you lift your own body weight and move through the sequence. Improving strength through a full range of movement helps reduce the risk of injury. Core muscles and stabilizing muscles are recruited throughout the practice, providing a solid foundation on which to build further sport specific strength and power.

Effect of Yoga on Co-ordination, Balance and Agility

• Improve Co-ordination, Balance and Agility

- Co-ordination can be improved by maintaining contraction and relaxation of different muscle groups as the poses take you through all planes of movement.
- Yoga poses require integration of the whole body and draw on your balance skills.
- Co-ordination allows muscle groups in the body to relate to one another, and balance allows you to relate to your environment.
- Improved co-ordination enhances balance, and balance improves agility.

Psychological Health Benefits of Yoga

- The ability to create a stress-free mind is a significant benefit of yoga practice. The physical practice is used as a tool to enhance breath control, which helps improve focus and concentration, allowing clarity of thought and clear decision making. A valuable tool in any sporting arena.
- Mental practice in any sport will teach you how to gain control of your emotional states, so arousal levels and anxiety don't impede your performance.
- Meditation is a mental practice proven to:
 - Reduce anxiety and stress
 - Improve cognitive function
 - These benefits combine to allow for better rest, sleep and recovery, as well as provide the ability to think more clearly under pressure.
 - Motivation level can be enhanced

Conclusion:

From above observations it can be concluded that;

1. Yoga therapy has positive impact on physical and psychological health of football players.
2. Yoga therapy is complementary to physical training of football players.
3. Yoga therapy is useful in development of holistic fitness of football players.

Recommendations:

- Yoga should be incorporated in training of footballers from an early age to promote their overall physical, as well as psychological health, including but not limited to relaxation, flexibility, and concentration.
- Physical fitness enhancement, Maintenance of health, Treatment of injuries
Rehabilitation, Prevention of injuries & chronic ill effects of prolonged exercise are the possible benefits from yoga for football players.

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