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Development of an integrated yoga module for sportsperson (cricketers) through research reviews

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Abstract

Cricket is the most popular game in the society. People are prone towards the cricket even from the rural to urban areas. So, it is necessary to not get injured and get more productive results. In the international level it is more necessary to get focus, co-ordination, concentration, endurance and stamina as a means to maintain holistic health. Yoga is the most ancient approach to achieve holistic health as it keeps one physically, mentally, socially & spiritually healthy and excellence. Yoga contains various techniques like asana, pranayama, mudra, meditation and other relaxation practices which help to perform one's activity with full potential. Shrimadbhagvadgeeta opines "yogahkarmasukaushalam" that is Yoga is the art of working skillfully. The aim of this paper is to explore the previous studies done for the sportsman and develop a consistent yoga module to help the cricketers.

Keywords: Cricket, yoga, concentration, stamina, flexibility

Introduction

Cricket is a technical and skilled game that test physical fitness mental strength, stamina and endurance^[1]. It is an exciting game that encourages leadership, friendship and teamwork. It needs different type of skills includes handeye coordination, concentration, spatial perception, balance, consistency, reflexes, accuracy^[2]. Apart from this stress reduction, will power is important factors needed in cricket. Cricketers perform exercises which developed muscular strength as well as stiffness in the body which causes some problems such as loosening of muscles, greater risk of high blood pressure, cardiovascular diseases. Yoga incorporates a great sense of sports community hooked up. Yoga has become very popular during the last few decades but the practice of yoga was originally derived from ancient *sanatan* philosophy for the purpose of still the mind, obtaining tranquilstate of mind. Yoga is an Indian way of living life which includes mental attitude, diet and practice of specific techniques such as asana (posture) pranayama (breathing exercise), meditation for attaining highest level of consciousness. Presence of yoga is available in folk traditions, Indus valley civilization, Vedic *upnishadic* heritage, Buddhist, and Jain traditions, *Darshan*, epics of Mahabharata and Ramayana, *Shaiva*, *Vaishnava* and *tantric* tradition. Adopting yoga holistically, mind body intervention develops personal, mental, psychological and decision making skills. In Yoga, one can try to calm mental fluctuations^[3] full control on breathing^[4] learn to focus^[5] awareness^[6] alertness^[7] improve willpower^[8] speed up recovery time^[1] boost self enhancement^[9].

Yoga carries much physical and emotional health^[10]. By practicing yoga anyone can improve their posture, balance, flexibility and strength^[11], build stamina and endurance. Practicing yoga can help to raise speed, agility^[12] and heighten body awareness which will help maintain healthy weight? It helps build more self-awareness so that one have better self-control and it also make mind-body connection strong^[13], helps in getting rid of anxiety^[14]. Now, a day people are customary to instant pleasure so no one has any more patience left. Yoga has become the need of the hour. Holding the breath during pranayamas can be uncomfortable but it builds patience. In Yoga although much emphasis is placed on physical movement of the limbs and the body and there is other kind of physical action is just as important as breathe. Breath helps to calm nervous system reducing stress by stimulating the parasympathetic response of (CNS) normalize heartbeat, blood pressure^[15]. This relaxation response help to

quiet on mind reduce stress and one's feel good. It has been found out by researchers that yoga in sports is important as it helps in various ways and various levels in sports person life [16]. Yoga regards the body as a vehicle for the soul to reach through ultimate consciousness and helps balancing the development of body and mind. Cricketers enhanced their performance with regular yoga practice to performance a sporting action with competency and successfully for which one needs high degree of concentration and focus of mind which is at peace and controlled. Yoga helps cricketers have greater awareness of mind and control of thoughts during difficult situations.

Yoga for cricket players

Yoga includes old ancient techniques united with a scientific approach of sports training to move one 'body, increase one's strength, stability and flexibility and to reduces the chances of injury thereby securing a prolonged career. A systematic research reviews on yoga for sports shows minimizing, motion and mobility. Every yoga posture is a balance of stability and mobility [17]. A perfect yoga practice require mainly all the muscles of body to do some actions simultaneously and the joints moved completely along their full range of motion as muscles along it contract or stretch to support the movement. One's get improved muscle balance as a result which translate to better form, stronger running, and fewer injuries [18]. In Yoga, flexibility practices include loose and relaxed muscle which contract or stretch relieving muscle tension and soreness while increasing range of motion and agility [19]. Asanas involve isometric contraction which helps to increase skeletal muscle strength [20]. It also increases muscular power and delays onset off tiredness [21]. Regular yoga practice increases muscle strength and oxygen consumption by muscles which helps to maintain blood flow in muscles due to generalized decrease in vascular tone in order to stimulation of parasympathetic activity during yogic

training [22]. Some results are supported by a randomized cross-over trial documenting reduction in blood lactate, heart rate and blood pressure with regular yoga practice [23]. The energy system in cricket is an anaerobic most of the time in the game for the players but because of its long duration game aerobic capacity also a very important factor for the physical fitness performance of the cricketers.

Materials and Methods

It is a survey method where, the key words cricket, yoga, concentration, stamina; flexibility has been searched for the formation of yoga module. The research reviews has been conducted using the databases (Medline, PubMed) and search engine (Google Scholar) from inception to till date.

Result and Discussions

On the basis of researches done on sports person, a yoga module of 90 minutes has been created which includes 6 joint movements, 20 *asanas*, 4 *pranayamas*, meditation, *mudra* and *yognidra*. These practices helps sports person to develop their health along with control at various emotions like affection, anger, love and provide firm control over mind and body which helps to maintain health and provide self-awareness, self-confidence. *Asanas* are physical exercises enabling the body to be a physical fit. They act as lubricating routine to joints, muscles, ligaments and other parts of body. *Pranayama* is a practice of breath regulation. It helps to calm nervous system which improves one's stress response, sleep quality and cardio-respiratory endurance and relieve muscle tension. Meditation helps to reduce areas of anxiety, promotes emotional health, enhances self-awareness, and helps to fight with addictions, generate kindness.

Integrating this Yoga module into the world of cricket appears to be appropriate for enhancing muscular functioning and maintain a state of mindfulness among players. Continuous practice can reinforce sustainable benefits for player.

Table 1: Yoga Module based on the scientific article and cultural text

S.No.	Yoga Module	Timing (in minutes)	Application/ Benefits
1	Opening Phase		
	Om Chanting [24]	2	Activates pranic energy and consciousness
	Gyatri Mantra [25]		Improves Functioning of Nervous System
Mahamrityunja Mantra [25]	Keeps Heart Healthy		
2	Practice Phase		
A	Yogic Shukshma Vyayam		
	(I) Buddhi Tatha Dhriti Shakti Vikasak Kriya (Neck) [26]	3	Activates all Relaxed Muscles
	(II) Kapola Shakti Vikasak Kriya (Cheeks, Mouth, Facial Movement) [26]		Purify blood, stimulates circulation & warm-up the body
	(III) Skandha Shakti Vikasak Kriya (Shoulder, Arms & Hands) [26]		Boost blood circulation
	(IV) Netra Shakti Vikasak Kriya (Eyes) [26]		Relieves pain
	(V) Udar Shakti Vikasak Kriya (Stomach, Waist) [26]		Helps to remove blockage
(VI) Janu Shakti Vikasak Kriya (Legs, Knees, Feets) [26]	Provides nutrition to joints		
B	Yogic-Jogging		
	(i) Trikonasana kriya [27]	3	Make body flexible
	(ii) Konasana kriya [27]		Stretches muscles
(iii) Vaksha vikasak kriya [27]	Helps in detoxification, strengthens chest		
C	Asanas		
	(1) Sitting Asana		
	(I) Mandukasana [28]	5	Helps in releasing insulin, improves constipation & acidity
	(II) Gomukasana [29]		Stretches triceps and strengthens biceps, gluteus maximus, minimus and medius
(iii) Ardhamatyendrasana [28]	Stretches the latisimus dorsi ('latus') on the side		

			with the raised elbow, releases the excess toxins and heat from body tissues and organ, improves digestion, eliminates wastes, stimulates spleen, kidneys, lungs, heart, and liver
	(iv) Janushirshasana ^[30]		Calms the brain and eliminates mild depression, therapeutic for insomnia, high blood pressure
	(2) Standing Asanas		
	(I) Tadasana ^[30]	5	Improves posture and coordination, boost circulation, relieve sciatic pain
	(II) Vrikshasana ^[28]		Improves neuromuscular coordination, It improves alertness and concentration, balance and endurance
	(III) Katichakrasana ^[30]		Helps to remove lethargy, improves the flexibility of the spine & waist, relieving Constipation
	(IV) Kona Sana ^[27]		Simulates the nervous system, alleviates nervous depression, Improves Digestion, Favourable effect on the Abdominal & Pelvic organs, good for blood circulation
	(3) Prone Asana		
	(I) Bhujangasana ^[28]	5	Therapeutic for Asthma, Stretches Chest & Lungs, Shoulders & Abdomen, Helps relieve Stress & Fatigue
	(II) Shalabhasana ^[28]		Provides Relief in Backache, Mild Sciatica & Slipped Disc, Stimulates the Appetite, Enhances Circulation to the spine & the whole upper Body
	(III) Makarasana ^[28]		Treats Hypertension, Heart diseases, mental disorder, releases all the tight knots in body & makes flexible, relieves the body & the mind of tension
	(4) Supine Asana		
	(i) Pawanmuktasana ^[27]	5	Massages the intestines and other abdominal organ, tones the arms, legs, buttocks, enhances blood circulation in the hip joints
	(ii) Uttanpadasana ^[31]		Lowers acidity, improves back pain, strengthens thighs & hips, increases blood circulation
	(iii) Matsyasana ^[28]		Stretches the deep hip flexor & intercostals muscle between the ribs, improves posture
	(iv) Naukasana ^[30]		helps in regulating blood flow at sugar level strengthens the abdominal muscles, strengthens the muscles of the arms & thighs, shoulders
	(5) Meditative Asana		
	(i) Gorakshasana ^[28]	5	Eases tension (especially) lower back, relieves piles & urinary disorders, enhances anti-ageing process
	(ii) Swastikasana ^{[28], [29]}		good meditation pose, stretches hamstring & glutes muscle, spine alignment, strengthens the back
	(iii) Sukhasana ^[30]		Helps in meditation, kick out anxiety, stress & mental tiredness
	Pranayama		
(D)	(i) Anulom-Vilom ^[27]	15	Removes toxins from the body, beneficial for respiratory issues like asthma & allergy, relives in headache
	(iv) Nadishodhana ^[29]		Maintain breathe, balances respiratory channel, Improves allergy in hay fever, sneezing or wheezing
	(ii) Bhastrika ^{[29], [32]}		Remove diseases from imbalance of tri-dosha, increases gastric fire, improves motor system, decreases anxiety
	(iii) Bhramari ^[33]		Maintains pulmonary function, helps in deep sleep, lowers one's blood pressure, relieves hypertension
(E)	Meditation ^[34]		Increases alpha and theta power, consciousness, increase in basal skin resistance by decreasing in respiratory rate
3	Closing Phase		
	(A) Shavasana ^[28]	5	Relieves mental distress, balances blood pressure, relaxation of body
	(B) Mudra ^[28]	5	Helps in controlling of prana and their movement, relives anxiety & lowers depression, helps in meditation
	(C) Yoga Nidra ^{[35], [36]}	30	Helps in maintaining alpha EEG & GSR, Alfa wave- brain relax, Beta waves - SNS activation, provides effective relief for Depression and

			reduces stress
	Mantra and shanti path	2	Sensitization and tranquility

Discussions and Conclusions

Yoga is a great opportunity to learn the link between tradition and modernity. Yoga is about outer and inner yogic sciences such as natural health, astrology, creative arts, energy medicine, and spatial design. Yoga practice and culture are made to work interdependently to bring changes with in internal and external environment by optimizing the factors of both natures. It helps the muscles tendons and ligaments move throughout full range of motion thus cultivating balance and core strength which is a huge benefit for sports person^[19].

Quantum physics, advances in molecular biology and new researches in cognitive neuroscience and having all the validation of teachings on ancient yogic science and revealed that we are indeed as an indicator of pure consciousness living in a totally inter-related universe which having the ability of shaping our reality through our body, mind and spirit connection. Researches showing that the environment is absolutely critical in determining the stimulation and modification of genes within the cell^[37]. This particular similarly can be drawn for the practice of yoga.

Yoga helps ones to relax completely not just tight muscles but also worried and overloaded mind.^[19] Yoga works in the frontal and transverse planes as well as not only in sagittal plane and ensuring well rounded development^[19]. The benefits of practicing asanas provide a path of curative and preventive measure for all physical or psychological issues. Researches showed that one's who practices Pranyama could achieve higher work rates with reduced oxygen consumption per unit work without increase in blood lactate levels^[38]. By meditative practice of yoga one can focus the mind on the sacred object which is a source of happiness and peace. Then one can able to focus on the present and remain unaffected by the past and future^[39].

Previous research studies on yoga, sports, cricket and other related researches helped in formulating yoga module for sports of cricket. The holistic approach of yoga being mindfulness with equal and immense emphasis on postures, breathing techniques and deep relaxation. Based on findings from this study, the Integrated Yoga module for sport of Cricketers suggests good content validity. This integrated Yoga module is a valid module for Cricket players. However, the feasibility & effectiveness of the Integrated Yoga module must be determinate by future studies.

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