

A Review on Therapeutic Effect of *Kirtan Kriya* Yoga

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ABSTRACT

Kirtan Kriya is a meditation method which was mentioned in the *Kundalini yoga*. The main focus of paper was on previous research on Kirtan Kriya. The main objective was to identify the therapeutic effects of Kirtan Kriya. Sixteen research articles were found in google scholar. Improving cognition, reducing Alzheimer's disease, reducing dementia, changing cerebral blood flow, improving sleep, improving memory, reducing stress, lowering anxiety, decreasing depression, improving psychological well-being, down regulate inflammatory genes, up regulate immune system genes, improving insulin and glucose regulatory genes, increasing telomerase, reducing pain, help in PTSD (Post Traumatic Stress Syndrome) patients, help in Mild Cognitive Impairment patients, improving quality of life and improving concentration were the therapeutic effects which found in this study. Improving cognition is the best therapeutic action of Kirtan Kriya according to the findings.

Key words: Cognition, Meditation.

INTRODUCTION

Yoga is a holistic philosophy originated in ancient India. The word "yoga" was derived from Sanskrit root "yuj" which means to connect, union or balance. Yoga helps to endure happiness, sorrow, victory and defeat equally in life. ^[1]

History of yoga can be divided into four main periods. ^[2]

Pre-classical yoga period

Yoga was developed in Northern India with *Indus- Sarasvati* civilization. In this period, *Bhagavad-Gita* is the most famous yogic scripture. *Karma yoga* and *Jnana yoga* were mentioned in *Upanishad*. ^[2]

Classical Yoga period

Patanjali's yoga sutras were prominent in this period. It was the first

systematic treatise of yoga which was written around the third century. *Patanjali* is considered as the father of yoga. *Raja yoga* was described in *patanjali's yoga sutras*. ^[2]

Post-Classical yoga period

Various yoga masters developed *Tantra yoga*. The purpose of this *tantra yoga* was to cleanse body and mind. ^[2]

Modern yoga period

Swami Vivekananda, T. Krishnamacharya, Swami Sivananda and Indra Devi are some of the popular yoga teachers in India. Because of these teachers, yoga philosophy was spread all over the world. *Hatha yoga* is popular in this era. ^[2]

There are several types of yoga such as *hatha yoga*, *raja yoga*, *karma yoga*, *bhakti yoga*, *jnana yoga* and *tantra yoga*. ^[3]

Yoga consists of eight main components called as *ashtanga yoga*. They are *Yama*, *Niyama*, *Aasana*, *Pranayama*, *Pratyahara*, *Dharana*, *Dhyana*, and *Samadhi*. The first four of these are related to *Sharira* (Physical body), next three are related to *Manas* (Mind) and last one related to *Athma*. *Samadhi* is the ultimate goal of yoga. [4]

Yama [4]

The first limb of *ashtanga yoga* is dealing with our behavior and ethics.

There are five yamas mentioned in the *Patanjali yoga sutra*.

Ahimsa-nonviolence

Satya- Truthfulness

Asteya-Non-stealing

Brahmachaya- Continenence

Aparigraha- non-possessiveness

Niyama [4]

Niyama is associated with self-discipline and spiritual well-being. *Niyama* related with *koshas* (sheath/ layers) and it leads ourselves to the deep truth.

There are five *niyamas*.

Saucha- purity of body, mind and speech

Santosa – contentment

Tapas- self discipline

Svadhya- study of self, study of moksha

Ishvarapranidhana- contemplation of god *ishvara*

Asana

Asana is the physical aspect of yoga. The steady and comfortable postures are called as *asanas*.

Asana should be hold for a period of time, relaxed and motionless. If any posture that causes pain, restlessness, it is not a yoga asana.

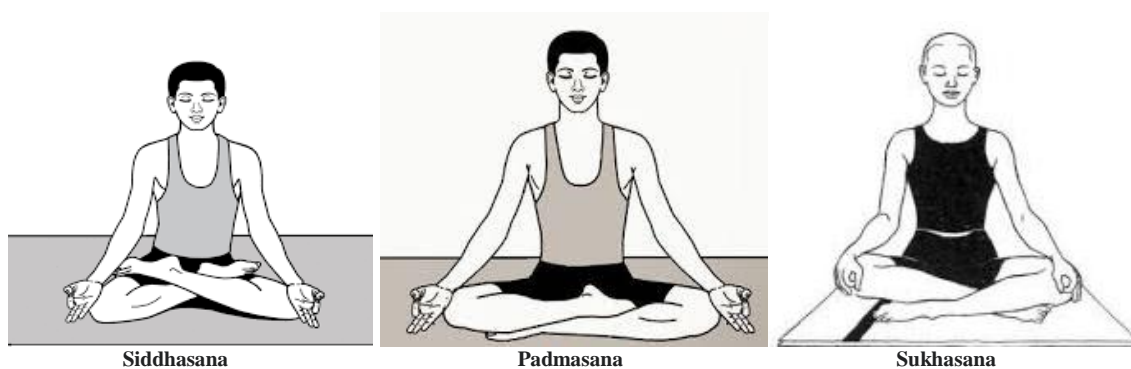
Ancient yoga masters have outlined various number of yoga asana.

Patanjali twelve seated meditation postures.

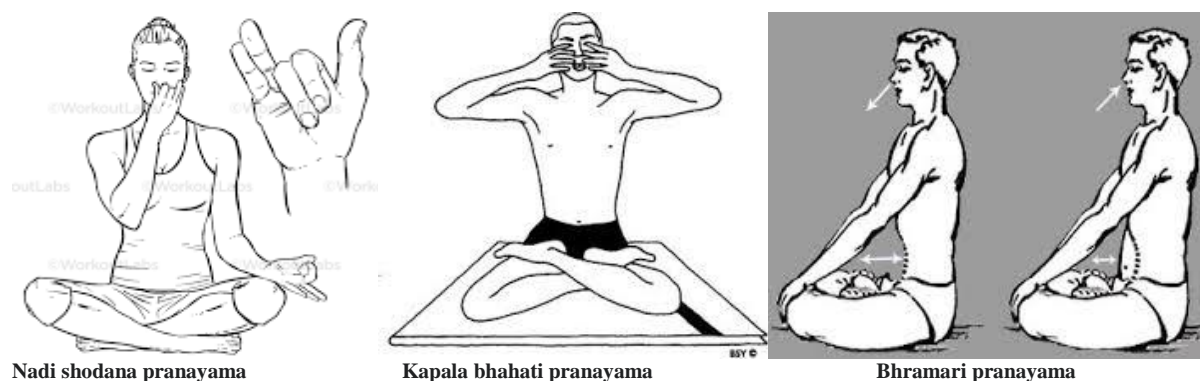
Hatha yoga pradipika had mentioned 84 *asanas*.

There are twelve asanas in Swami Vishnu devanada tradition.

In Babaji method, eighteen postures had taught. [4]



Pranayama [4]



“Prana” means breath.” Ayama” means restraint or control. Prana also refers to energy, life. The control of inhalation and exhalation called as pranayama. Pranayama should do in a calm, peaceful place, in a proper time, and after doing shad karma. There are for steps of pranayama called as *Purvaka* (inhalation), *Kumbhaka* (pause the breathing), *Rechaka* (Exhalation) and *thuriya* (pause breathing with no air in the lungs). Various types of pranayama were taught by yoga acharyas such as *Nadi shodana*, *Surya bhedana*, *Chandra bhedana*, *Kapala bahathi* and *Bhramari*.

Pratyahara ^[4]

“Praty” means to withdraw or draw back and “ahara” stand for anything we take in by ourselves. *Pratyahara* is the withdrawal of senses. It a process of retracting the sensory awareness from external objects. It is a step of consciously closing of mind to the sensory world. *Pratyahara* helps to seek self-knowledge and freedom of inner world.

Dharana ^[4]

The root of *dharana* is “dhar”. The meaning of the root is to hold, maintain, concentration, to keep. *Dharana* means concentration. In this state, person can hold his mind onto a particular inner state or subject without jumping from one topic to another. The mind is fixed on the object which wants to observe. *Tratak*, visualization and focusing on breath are practices of *dharana*.

Dhyana ^[4]

Dhayana means meditation. It includes Well train of thought, cognition and flow of awareness. *Dharana* and *dhyana* are related to each other. Patanjali was taught that *dhyana* is the mind process.

Samadhi ^[4]

Samadhi is the ultimate goal of yoga. It means bliss, enlighten or transcendence. In this state, no difference

between the actor of meditation, the act of meditation and the subject of meditation.

There is a concept called *Pancha kosha* in yoga. It was originated from *Taittiriya Upanishad*. *Pancha kosha* means five sheath. There are five layers of awareness which all experience is filtered. *Atman* or true self is in the center of these five sheaths. When these all five sheath are consolidate each other and balanced, it is called as wellbeing. ^[5]

Annamaya kosha, *Pranamaya kosha*, *Manomaya kosha*, *Vijnanamaya kosha* and *Anandamaya kosha* are the five pancha kosha.

Annamaya kosha (the food sheath)

The outermost sheath, related to the physical body which acquire the energy from foods and nourishment. To the well balance of *annamaya kosha*, asana practice, dietary habits and lifestyle changes are helped. ^[5]

Pranamaya kosha (the sheath of vital life force energy)

Pranamaya kosha is associated with *prana* (energy). It is connected with *annamaya kosha* and this sheath is responsible for liveliness of physical body. *Pranayama* helps in well-being of *pranamaya kosha*. ^[5]

Manomaya kosha (psychological sheath)

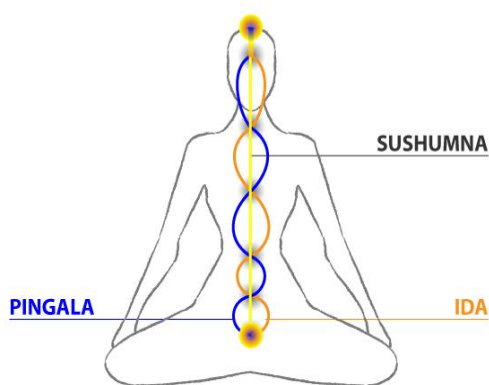
The mind called as *Manomaya kosha* and helps to control the perception of the world. Thinking pattern of human is related to this sheath. Mindfulness helps for the influencing the *manomaya kosha* ^[5]

Vijnanamaya kosha (The intellect sheath)

This sheath is connected to inner wisdom and consciousness. ^[5]

Anandamaya kosha (the bliss sheath)

This sheath is connected with *Atman* and universal consciousness. If someone daily practice the meditation, he can attain *anandamaya kosha*. ^[5]



According to the yoga acharyas there are about 70000 *nadis* in the *pranayama kosha*. *Ida*, *Pingala* and *Sushumna nadi* are the basic *nadi* in human body. *Ida* is the nerve channel which is the vital air passes on the left side of the *sushumna* and through left nostril. *Ida* represents cool, white, feminine and moon. *Ida* also called as *Chandra nadi*. *Pingala* is the nerve channel which run on the left side of *sushumna* and right nostril. *Pingala* represent yellow, red, masculine, active, sun and *rajasic* quality of human. *Sushumna nadi* which is called as *brahma nadi*, is the neutral energy flow which started from *muladhara chakra*. *Sushumna nadi* helps in balancing *ida* and *pingala* and awakening *Kundalini Shakti*.^[6]

According to the international Association of Yoga Therapists, yoga therapy is the process of empowering individuals to progress toward improved health and well-being through the application of the teachings and practices of yoga^[7]

Yoga is related with body and mind. In *ashtanga yoga*, *yama* and *niyama* helps to keep healthy body and mind and *pranayama* and *asana* can be used in therapeutic purpose for physical and mental diseases. Examples for physical health conditions are obesity, arthritis, insomnia, Alzheimer's disease, asthma, osteoporosis, back pain, hypertension, constipation, muscular diseases, bronchitis, irritable bowel syndrome, and chronic obstructive pulmonary disease, heart diseases, multiple sclerosis, diabetes mellitus and Parkinson's

disease. Mental health conditions such as anxiety, stress, depression, Post traumatic stress diseases, schizophrenia, Addiction can be treated with yoga techniques.^[7]

Surya namaskar helps in obesity, depression, and improve flexibility, muscle strength and balance, *Hamsasana* (Swan pose), *Mayurasana* (peacock pose), *Agnisar asana* is helped in abdominal weight reduction, *Bhujangasna* helps in backache, slipped disk and abdominal fat reduction, *Naukasana* can be used in reducing waist fat, *Dhanurasana* can be used in obesity and wellbeing of kidney pancreas, liver and intestines, *Trikonasana* is used in reducing side waist fat, *Tadasana* is effective in increasing height and spine, *ustrasana* can be used in asthma and beneficial for improving flexibility of spinal cord, *marjariasana* helps in menstrual cycle problems and reproductive diseases. *Halasana* helps in treating diabetes and constipation.^[8]

Yoga nidra is a relaxation therapy which can be used in relaxation of physical, mental and emotional system. *Yoga nidra* is gained peace and wellbeing and helps in reducing stress, diabetes mellitus.^[9]

There are several yoga Meditation methods such as *Sudarshan kriya yoga*, *Kirtan kriya yoga* and *Vihangam yoga*. *Kundalini yoga* is dealing with *kundalini* energy which is transformation and expansion of consciousness. In this yoga method, *kundalini* energy which is symbolized as a coiled sleeping serpent, lies at the base of spine is raising along the spine through *chakras* which are the energy centers in body.^[10]

Kirtan Kriya (KK) is a meditation method mentioned in the *Kundalini yoga*. It also called as a singing exercise, because it involves singing the sounds. Kirtan Kriya uses the five primal sounds- S T N M A. The meaning of the words in Kirtan Kriya is, SAA- Beginning, infinity, TAA- Life, NAA-Death and MAA- Rebirth. Mudra is very important in this meditation type. While chanting this Mantra (words), each

finger should be touched the tip of thumb with a firm and gentle pressure.^[11]

Procedure of Kirtan Kriya can be described as follows;

Eyes should be closed while sitting comfortable position with spine straight. Arms should be relax and place on thighs or knees. Saa Taa Naa Maa sounds (Mantra) should be repeated. The sound flowing in through the top of head and out the middle of forehead should be imagined.^[11]



For SAA- index finger touches thumb, for TAA- middle finger touches thumb, for NAA- ring finger touches thumb, for MAA-small finger touches thumb and

for first 2 minutes, chant in normal voice, chant in whisper for next 2 minutes, chant silently for next 4 minutes, then again, chant in whisper for 2 minutes, chant loud for last 2 minutes. At the end, take a deep breath and stretch arms up, exhale and relax.^[11]

Justification

Benefits of practicing Kirtan Kriya are improving memory power and reducing stress according to the common opinion by Yoga Acharyas at present. The therapeutic effects of Kirtan Kriya must be identified by the physicians who are practicing yoga therapeutics.

Objective:

To identify the therapeutic effects of Kirtan Kriya.

METHODOLOGY

Literature searches were carried out using the words Kirtan Kriya, typed in to popular search engines including Google and Google scholar to find out the therapeutic effects of Kirtan Kriya within the period of 06 months.

RESULTS AND DATA ANALYZING

Sixteen research articles found in this research. They were analyzed as follows;

Researchers	Research Topic	Therapeutic effects of Kirtan Kriya
Khalsa D.S Newberg A,2011	Kirtan Kriya Meditation: A promising technique for enhancing cognition in memory- impaired older adults ^[12]	Lowering anxiety Lowering stress Improve cognition Improve psychological well-being reducing Dementia reducing Alzheimer's Disease
Khalsa D.S,2015	Stress, meditation and Alzheimer's disease prevention: where the evidence stands ^[13]	Improve sleep Decrease depression Reduce anxiety Down regulate inflammatory genes Up regulate immune system genes Improve insulin and glucose regulatory genes Increase telomerase Improves psycho-spiritual well-being Maintenance of cognitive function Prevent of Alzheimer's disease
Moss A.S Wintering N Roggenkamp H Khalsa D.S Waldman M.R Monti D Newburg A.B,2012	Effects of an 8-weeks meditation program on mood and anxiety in patients with memory loss ^[14]	Positive changes in mood, anxiety and other neuropsychological parameters in memory loss patients Positive changes in cerebral blood flow

Table continued		
Newburg A.B Wintering N Khalsa D.S Roggenkamp H Waldman M.R.,2010	Meditation effects on cognitive function and cerebral blood flow in subjects with memory loss: a preliminary study ^[15]	Improve neuropsychological functions in memory loss patients Positive changes in cerebral blood flow
Poti K Upadhye J.A.,2020	Effect of meditation and callisthenic exercise on physiological and psychological variables ^[16]	Improve concentration Improve memory in dementia patients Reducing stress Help in age-related memory loss and memory retention problems
Innes K.E Selve T.K Khalsa D.S Kandati S.,2017	Meditation and music improve memory and cognitive function in adults with subjective cognitive decline: a pilot randomized controlled trial ^[17]	Enhance subjective memory function in subjective cognitive declined(SCD) patients Enhance objective cognitive performance in SCD patients
Weekes D.M.,2019	Mindfulness and meditation for pain control and stress relief in the school age children: an integrative review ^[18]	reducing pain in school-aged children relaxation of school aged children
Black D.S Cole S.W Irwin M.R Breen E St.Cyr N.M Nazarian N Khalsa D.S Lavretsky H, 2013	Yogic meditation reverses NF-kB and IRF-related transcriptome dynamics in leukocytes of family dementia caregivers in a randomized controlled trial ^[19]	Reducing activity of pro-inflammatory nuclear factor Reducing stress of family dementia caregivers
Innes K.E Selve T.K Brundage K Montgomery C Wen S Kandati S Bowles H Khalsa D.S Huysmans Z,2018	Effects of meditation and music-listening on blood biomarkers of cellular aging and Alzheimer's disease in adults with subjective cognitive decline: an exploratory randomized clinical trial ^[20]	Alter plasma ab levels, TL and TA Improving cognitive function Improving sleep Improving mood Improving quality of life
Innes K.E Selve T.K Khalsa D.S Kandati S, 2016	Effects of meditation versus music listening on perceived stress, mood, sleep, and quality of life in adults with early memory loss: A pilot randomized controlled trial ^[21]	Improve well-being Improve Sleep Improve Quality of life with SCD Decreasing stress and mood
Canete T Boras G Ramos S Khalsa D.S.,2019	Emotional and cognitive improvement with kirtan kriya meditation: A pilot study for mild cognitive impairment patients in a catalan community ^[22]	Decreasing negative mood, tension, hostility, confusion Improving memory Improving psycho-emotional and cognitive health
Innes K.E Selve T.K Khalsa D.S Kandati S,2016	A randomized controlled trial of two simple mind – body programs, Kirtan Kriya meditation and music listening, for adults with subjective cognitive decline: feasibility and acceptability ^[23]	Improving memory in dementia and AD Decreasing stress Improving well-being Improving sleep Improving quality of life in adults with SCD
Sales E Chou Y.,2019	Yoga as advanced cognitive training : how Kirtan Kriya in kundalini yoga changes the PTSD brain ^[24]	Help in PTSD
Lavretsky H Epel E.S Siddarth P Nazarian N St.Cyr N .Khalsa D.S Lin J Blackburn E Irwin M.R, 2013	A pilot study of yogic meditation for family dementia caregivers with depressive symptoms: effects on mental health, cognition, and telomerase activity ^[25]	Improving mental and cognitive functions Lowering depressive symptoms
Boneu M.B Can T Castella J Ramos S Pimpinela N Khalsa D.S.,2016	Mild cognitive impairment : the effect of kirtan kriya meditation on psychological and cognitive status ^[26]	Help in Mild Cognitive Impairment patients Improving quality of life, Improving cognition Improving memory
Williams J.R Jaroudi W Perich T Hoscheidt S Haj M.E Moustafa A.A.,2018	Mindfulness and meditation: treating cognitive impairment and reducing stress in dementia ^[27]	Improving cognition Reducing stress Increasing quality of life Positive changes in cerebral blood flow

Data analyzing was done according to the relevant percentages.

Therapeutic effect	Number of Researches	Percentage
Improving Cognition	8	50%
Reducing Alzheimer's disease	2	12.5%
reducing Dementia	1	6.25%
Changing Cerebral blood flow	2	12.5%
Improving sleep	3	18.75%
Improving memory	5	31.25%
Reducing stress	6	37.5%
Lowering anxiety	3	18.75%
Decreasing depression	2	12.5%
Improving psychological well being	3	18.75%
Down regulate inflammatory genes	2	12.5%
Up regulate immune system genes	1	6.25%
Improving insulin and glucose regulatory genes	1	6.25%
Increasing telomerase	1	6.25%
Reducing pain	1	6.25%
Help in PTSD patients	1	6.25%
Help in Mild Cognitive Impairment patients	1	6.25%
Improving quality of life	4	25%
Improving concentration	1	6.25%

DISCUSSION

Nineteen therapeutic effects were found such as Improving Cognition (50%), reducing stress (37.5%), improving memory (31.25%), lowering anxiety (18.75%), improving sleep (18.75%) and improving psychological well-being (18.75%). Kirtan Kriya helps in various diseases connected with nervous system such as Alzheimer's disease, Dementia, stress, anxiety, depression Post traumatic stress syndrome and mild cognitive impairment. And also it can be used in regulating genes. There were only few researches done on Kirtan Kriya Yoga. Therefore more clinical studies should be done on this in future.

CONCLUSION

Improving cognition is the best therapeutic action of Kirtan Kriya according to this study. It has Therapeutic effect of improving memory and psychological wellbeing. Kirtan Kriya yoga also beneficial in treating patients with stress and anxiety.

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