

Yoga a Reassuring Therapy for Improving Quality of Life in Cancer Survivors - A Review

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ABSTRACT

Introduction: Therapeutic yoga in Indian System of Medicine (ISM) is nowadays considered as one of the primary modalities of an integrated line of therapies for disease prevention, and in palliative care, as recognized by the World Health Organization (WHO). It is better to describe it as a vital part of drugless (Non-pharmacological) therapies that offer a supplemental or even alternative management system in the management of certain disease states. Most of the works on yoga on previous periods were conducted mainly in clinical subjects pertaining to lifestyle disorders, rheumatism, and psychosomatic disorders. Now recent investigators concentrate more on its effects for improving the quality of life in different variants of cancer survivors. **Methodology:** References from various published works of literature concerned with yoga, clinical research in cancer were reviewed and documented to acquire a better understanding in the success of implementing yoga as a complementary therapy for cancer patients. **Observation and Discussion:** In all the reported research works pertaining to yoga and cancer, the response of yoga and its allied practical principles in cancer victims was remarkable. Most of the studies included control and test groups with a fixed module of yogic practices, relaxation techniques, and meditation steps. In spite of common procedures to all the subjects, all of them showed significant improvement in the particular measures on physical and psychological planes. In the review of various resourceful literature works, we may ascertain the fact that the feasibility and potential efficacy of yoga as a supplementary therapy in cancer types is to be understood in an angle of practicability, with much concern over patience and accuracy for getting the desired results. The sessions are repeated for longer durations as indicated in most of the outcome studies. Long-term basis of well-disciplined practice only yields fruitful results. **Conclusion:** The divine practices of yoga and its principles may be advocated as supportive therapy in all the health care facilities in a view of prevention and management of metabolic diseases like cancers.

KEYWORDS CAM, Cancer Survivors, CIM, QoL, Siddha, Yogam.

1. INTRODUCTION

Cancer, one of the dreadful diseases faced by humanity that accounts for 13% of total worldwide mortality index.^[1] Most of the sufferers often have to face severe adversities and psychological decline during the treatment period or in post-treatment sessions. Physical impairment has an unrelenting impact on the function and Quality of Life (QoL) of many survivors.^[2]

Psychological health is better defined as the perfect balance of two factors, one is the stress and psychosocial burden caused due to the exposure and experience and another is the resources, which one uses to cope up with the stress and burden. Most of them depend on different forms of complementary and alternative medicine (CAM) to manage the complications confronted by them. Herbal medicines and yogic practices include the primary alternative therapies selected by the majority of the victims with a hope to reduce the

adversities of cancer, for lessening the symptoms or it's after-effects.^[3,4]

Yogam is one of the most renowned health practices that are accepted globally. Through the time, this marvelous art has evolved into a series of different methodologies with an aim to accomplish the perfectness in not only the corporal portion but also the psychosocial wellbeing of the individual.^[5,6] Indigenous medical systems like Siddha medicine and Ayurveda have well established concrete ideology of yogic sciences. Each recommends their own techniques to achieve the so-called common goal.^[7] *Yogam* includes the combination of *Vasi Soothiram* (Breathing exercises), *asanam* (Physical postures) and *dhyanam* (Practice of Meditation).^[8]

Therapeutic yoga in Indian System of Medicine (ISM) is nowadays considered as one of the primary modalities of an integrated line of therapies for disease prevention, and in palliative care recognized by the World Health Organization (WHO). It is better to describe it as a vital part of drugless (non-pharmacological) therapies that offer a supplemental or even alternative management system in the management of certain disease states.^[1] Most of the works on yoga on previous periods was conducted mainly in clinical subjects pertaining to lifestyle disorders, rheumatism, and psychosomatic disorders. Now recent investigators concentrate more on its effects for improving the quality of life in different variants of cancer survivors. Numerous surveys have evaluated the characteristics and consequences of the widespread symptoms experienced by cancer victims and their responses with yoga therapy.^[1,7] Therefore, an attempt has been made to review and document the effects of yoga in improving physical, psychological health and QoL in cancer patients from the published resources.

2. METHODOLOGY

References from various published literature and Cochrane database concerned with yoga, clinical research in cancer were reviewed and documented to acquire a better understanding in the success of implementing yoga as a complementary system in cancer victims.

3. OBSERVATION AND DISCUSSION

Yogam, the third step of *Agathavam* (*Attanga yogam*- 8 practices of corporeal, mental and spiritual accomplishment) is considered as a dynamic practice among the supreme spiritual saints of Siddha medicine and Ayurveda. In southern culture, the entire practice is termed as *Siva yogam* or *Raja yogam*.^[8]

The yogic postures called *Aathanam* (*Asana*) is a conglomeration of *Vayutharanai* (Breathing science) with well-coordinated, balanced and rhythmical physical exercises, aimed for vitalizing the physical and psychosocial domain of the individual in practice moreover enriching the spiritual part.^[7, 8] This lifestyle culture is practiced through, with an aim that is not merely for developing the physical stamina, endurance and vitality but also with an inner vision of its experienced effects beyond the involuntary part of the human system concerned with essential processes of digestion, evacuation, circulation, respiration and secretion and through them, the autonomic nervous system which regulates the activities. The stringent practice of *yogam* defies the aging and deterioration process that is distressing to the body.^[8] The practice has answers to most of the relevant metabolic disarrays particularly cancer types upsetting mankind.^[9] It was reported that, in all the studies pertaining to clinical cancer research, most of the patients were the victims of agonizing distress when observed in both physical and psychosomatic planes (Table 1). Specific physical deficits lead a sustained impression on the normal functions and QoL of cancer survivors.

Table 1. Some Important Physical and Psychological burden of Cancer Sufferers and Survivors

S.No	Type of cancer	Health domains affected	
		Physical liabilities	Psychological burden
1	Breast cancer	Fatigue, skin irritation, hair loss, breast cancer had higher rates of decline in physical function, vitality and social function, along with increase in pain and musculoskeletal problems	Insomnia, anxiety, depression.
2	Cancer of cervix	Reduced physical and sexual function, menopausal symptoms	Higher scores of neuroticisms than non-sufferers who expresses great intensity of feelings, mood fluctuations and feeling of loneliness. Feeling of social isolation.
3	Childhood leukemia	-	Cognitive decline
4	CNS cancer	Higher physical impairment	-
5	Head and neck cancer	Pain, energy loss	Lack of confidence to work due to disfigurement and scarring, depression
6	Lung cancer	Physical limitation	-
7	Non-Hodgkin lymphoma	Fatigue	-
8	Prostatic carcinoma	lack of stamina, musculoskeletal problems, decreased participation in activities, and sexual dysfunction. Urinary obstruction, urinary incontinence, and bowel urgency	Anxiety, depression. Fear of recurrence
9	Testicular cancer	Reduced vitality, pain, musculoskeletal complications, reduced sexual function	-

Table 2. Response of Yoga practices among cancer sufferers

S.No	Intervention	Sample size	Outcome measure	Results	Reference
1	Asanas (Yogic postures), pranayama (Breathing exercises) and savasana (Dead pose)	44	Fatigue, depression and sleep quality	Positive effects in all the measures. Improved emotional wellbeing.	Danhauer et al.,2009 ^[18]
2	Integrated yoga: Asanas, pranayama, meditation, and yogic relaxation	88	Anxiety and depression	Significant improvement between groups on anxiety, depression and perceived stress.	Raghavendra et al.,2009 ^[19]
3	Integrated yoga: Asanas, pranayama, meditation, and yogic relaxation	98	Anxiety	Overall decrease in both self-reported state anxiety and trait anxiety.	Rao et al., 2009 ^[20]
4	Simple yoga: yogic relaxation techniques	84	Fear of recurrence, anxiety, depressive symptoms, perceived stress	Significant improvement on levels of depression, anxiety, fear of recurrence, energy, and physical role functioning.	Lengacher et al.,2009 ^[21]
5	Integrated yoga: asanas, pranayama, meditation, and yogic relaxation	68	Anxiety and depression, level of stress	Significant improvement on anxiety and depression	Banerjee et al., 2007 ^[22]
6	Hatha yoga: physical stretches, breathing, and meditation	128	Spiritual well-being fatigue, distress	Significant improvement	Moadel et al., 2007 ^[23]
7	Yoga: Asanas, Savasana (relaxation)	38	Anxiety and depression symptom of stress physical activity, fitness (grip strength) and flexibility.	Significant improvement	Culos-reed et al.,2006 ^[24]
8	Simple yogic relaxation techniques	111	Psychological distress and stress-related somatic complaints, Health-related QoL	Improvement in social functioning, Vitality, mental and general health	Monti et al., 2006 ^[25]
10	Simple yogic relaxation techniques	50	-	Enhanced appetite, sleep, bowel habits, feeling of peace and tranquility.	Bower et al., ^[1]
11	Hatha yoga Iyengar techniques and relaxation	38	Measures of mood, stress, quality of life, and physical activity	Subjects reported decline of total mood disturbance and stress. Quality of life improved. Improvement in cardio pulmonary symptoms.	^[26]
13	Meditation-based stress reduction (MBSR) program including yoga	109	Mood and stress measures	65% reduction in total mood disturbance in MBSR subjects compared to control group.	^[27]
14	Meditation-based stress reduction (MBSR) program including yoga	59	Participants completed measures of mood, quality of life, stress, and health behaviors,	The intervention group reported significant improvements in QoL, caffeine use, and appetite.	^[28]

Chief complaints pertaining to physical level were mostly musculoskeletal problems, frequent fatigue or energy loss, lack of vitality, sexual deficiencies, and diminished social functions (reduced interaction and performance of activities). Variation in psychological responses represented a large population who was diagnosed of cancer and after undergoing treatments like radiation and chemotherapies. Anxiety, depression, mood swings, fears of recurrence, sleep disturbances were the common findings of cancer victims irrespective of the nature or type of carcinoma.^[9-17]

In all the reported research works pertaining to yoga and cancer, the response of yoga and its allied practical principles in cancer victims was remarkable. Most of the studies included control and test groups with a fixed module of yogic practices, relaxation techniques and meditation steps.^[1] In spite of common procedures to all the subjects, all of them showed significant improvement in the particular measures on physical and psychological planes (Table 2).^[1]

As per the Cochrane systematic reviews on the efficacy of yoga in breast cancer patients, out of 24 studies involving 2166 subjects, majority of them presented encouraging outcomes in aspects of improvement in QoL, fatigue, and sleep disturbances.^[29] The quality evidences from various resources supports the recommendation of yoga as a reassuring intervention in cancer conditions for improving ones wellbeing, quality of life and further reducing physical and mental exhaustion, anxiety, depression and sleep instabilities when compared with no therapy. We may ascertain the fact that the feasibility and potential efficacy of yoga as a supplementary therapy in cancer types is to be understood in an angle of practicability, with much concern over patience and accuracy for getting the desired results. The sessions are repeated for longer durations as indicated in most of the outcome studies. Long-term basis of well-disciplined practice only yield fruitful results.

3.1 Limitations

There is a huge void in the area of practical yoga specific to the systemic approach. Most of the studies concentrate on general practice of yoga as common protocol for all the cancer cases. The need of the hour implication on system wise approaches in particular with cancers or its symptomatic management that is purely based on the *Deham* (body temperament) and *Noi ilai* (stage of the disease). In spite of common protocol, the modules should be personalized for the sufferer that may yield a full-fledged response in term of improving the quality of life.

4. CONCLUSION

Sorting out and deriving sense from one's cancer experience play a pivotal role for the person to accustom the situation moreover than the matter of survivorship. For understanding the value of life and health one has to redefine certain spectrum within them either spiritually, through acceptance of the reality, conducts to cope up with the sufferings and by ensuing certain health practices. All the above has an affirmative impact on the persons QoL. Yoga is a multidimensional approach that enables the person to endure the hardships of cancer suffering expressed in their physical and psychosomatic domains and prepares one to triumph the necessity goals of natural life. Thus, the divine practices of yoga and its principles may be advocated as a supportive therapy in all the health care facilities in a view of prevention and management of metabolic diseases like cancer.

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