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A Review on Types of Yoga in Cancer Therapy

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ABSTRACT:-To scope with cancer and its treatment-related sideeffects and toxicities, people are increasingly using complementary and alternative medicin (CAM). Consequently, integrative oncology, which combines conventional therapies and evidence-based CAM practices, is an emerging discipline in cancer care.

The use of yoga as a CAM is proving to be beneficial and increasingly gaining popularity. An electronic database search (PubMed), through December 15, 2016, revealed 138 relevant clinical trials (single-armed, nonrandomized, and randomized controlled trials) on the use of yoga in cancer patients.

A total of 10,660 cancer patients from 20 countries were recruited in these studies. Regardless of some methodological deficiencies, most of the studies reported that yoga improved the physical and psychological symptoms, quality of life, and markers of immunity of the patients, providing a strong support for yoga's integration into conventional cancer care.

This review article presents the published clinical research on the prevalence of yoga's use in cancer patients so that oncologists, researchers, and the patients are aware of the evidence supporting the use of this relatively safe modali care.

I. INTRODUCTION:--

Cancer is one of the most feared diseases. Starting from the diagnosis of cancer, its progression (i.e., metastasis to bone and organs), adverse effects of its treatment (chemotherapy, radiation, and surgery), and diagnostic procedures (biopsies and radiological diagnostic scans) can cause physical, psychological, and emotional problems affecting patients' quality of life (QOL).

The statistics of new cancer cases and cancer-related mortality is scary. According to the 2016 report of the American Cancer Society, more than 1.6 million new cancer cases were diagnosed each year,[10] about 32.6 million people were living with cancer worldwide, and the number has been increasing with time. It is estimated that about 33% of women and 50% of men would develop cancer during their lifetime; about 15% of all deaths worldwide would be attributed to cancer, about 77 million people worldwide would die of cancer, and it would surpass heart diseasesWith advances in diagnostic methods and improved treatment strategies, it is expected that the number of cancer survivors will continue to increase and pose a great challenge to health care system.

Despite the availability of powerful technology and strong and targeted medicines, the desired therapeutic success in cancer care and other chronic diseases remains an elusive goal for the modern medicine. In addition, the conventional medical interventions are expensive and associated with undesirable toxicities. The patients, therefore, may turn to nonconventional therapies, e.g., complementary and alternative medicine (CAM).

Increasing interest in CAM and demands from the public, medical professionals, media, and government agencies had led the National Institute of Health in 1998 to establish the National Center for Complementary and Alternative Medicine (NCCAM) to explore those practices that are not currently considered to be a part of conventional (or main stream) medicine practiced,

(i) whole medical systems (Ayurveda, Chinese traditional medicine, homeopathy, and naturopathy)
(ii) mind–body medicine (yoga, meditation, relaxation, visualization/imagery, cognitive therapy, aromatherapy, dance, healing touch, hypnosis, music, art, prayer, sleep promotion, support groups, etc.);
(iii) biologically based practices (dietary supplements, herbal products, shark cartilage, etc.)
(iv) manipulative and body-based practices: acupressure, acupuncture, chiropractic, massage, osteopathic manipulation; and
(v) energy medicines (Qi gong, Reiki, therapeutic touch, electromagnetic fields, and alternating-current or direct-current fields)

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Types Of Yoga In Cancer Therapy:-

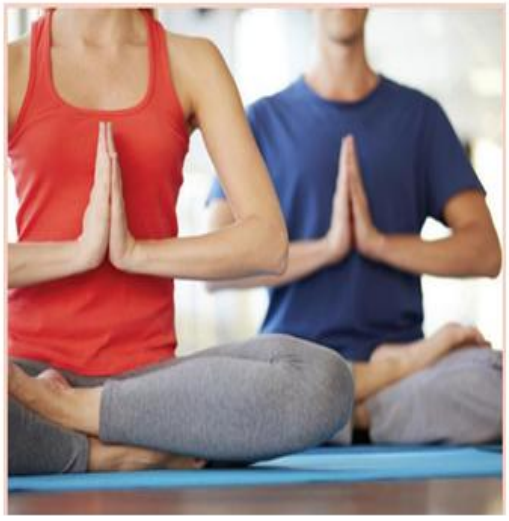
There are mainly three types of yoga in cancer therapy

1) Hatha Yoga
2) Kundalini Yoga
3) White Tantric Yoga

1) Hatha Yoga:-

What exactly Hatha yoga actually is hasn't changed for thousands of years. However our thinking and perception of it certainly has. Language is a powerful thing, and in different cultures the same word can have a variety of definitions. Throughout the evolution of yoga practice, the same word Hatha has come to mean different things too.

Popular thinking 'in the West' (an all-too-common expression now), is that Hatha yoga is about balancing the body and mind. 'Ha' represents the esoteric sun, and the moon. The practice of Hatha yoga aims to join, yoke, or balance these two energies.



A yoga class described as 'Hatha' will typically involve a set of physical postures (yoga poses) and breathing techniques. These are typically practised more slowly and with more static posture holds than a Vinyasa flow or Ashtanga class. And indeed, that is how we describe our Hatha yoga classes on EkhartYoga.

Methods:-

A randomized controlled trial was performed. Thirty-six volunteers were allocated to clinical (participated in 4 to 6 Hatha Yoga practices) or control groups and answered the questionnaires State-Trait Anxiety Inventory, Subjective Well-Being Scale, and Mindfulness Attention Awareness Scale before and after the intervention period.

Mann-Whitney and Wilcoxon nonparametric analyses were performed to compare the groups to each other and at different moments25 premenopausal women with a range of chronicstress participated in the intervention, including four 6-hourworkshops and weekly 1-hour calls over 12 weeks.

The Child-hood Trauma Questionnaire (CTQ) was used to assess earlyadversity. Negative affective reactivity, recovery, and attributions in response to daily stressors were assessed using averagesacross a 7-day nightly diary. The primary outcome was perceived stress over the last month.

All clinical investigations in this study were conducted in accordance withthe 1964 Declaration of HelsinkiParticipants were randomized 1:1 in blocks of four. Theallocation sequence was generated by the study statisticianand then transferred to sealed numbered envelopes. Thestudy staff enrolled participants and implemented the allocation sequence, which was concealed from the study staffuntil study assignment.

2) Kundalini yoga:-

Kundalini yoga therapyKundalini yoga is called the "mother of all yoga". It's the most comprehensive of all yoga, combining meditation, prayer, dynamic postures and breathing exercises. It is considered to be one of the more spiritual styles of yoga, called "the yoga of awareness," because it opens the heart, builds physical and mental strength and aims to cultivate compassion and consciousness in an individual.

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An Indian kundalini yoga teacher, Yogi Bhajan, introduced kundalini yoga to the West in 1969 (Shakta Kaur Khalsa, 2000, p.9). Kundalini yoga as taught by Yogi Bhajan uses rhythmic targeted movement of kriyas in conjunction with breath with movement, which distinguishes kundalini yoga from other forms of yoga. Kriya means completed action that consists of a predetermined set of postures with breathing exercises and mantra.

These are designed to affect various nerves, glands and organs so each kriya has a specific effect on the person's physical structure and physiology (Shanti Shanti Kaur Khalsa, Mantra, a specific application of sound, is used in kundalini yoga to equalize and distribute energy.

Chanting out loud regulates breath rhythm to slow down and deepen the breath. It can create movement in the lymphatic circulation, release stress and build vitality if the body movement is restricted because of pain or surgery. With mantra, one can also create movement in structural, psychological and physiological levels.

Kundalini yoga provides a person with tools that work by activating and transforming the body's energy centres chakras, which are centers of consciousness and focal points of energy. There are seven major chakras plus aura, which interact with the body influencing the moods, thoughts and health. The tools enable one to harness the energy of the mind andthe emotions, so that one can be in control of themselves, ratherthan being controlled by thoughts and feelings, and other triggers from outside.

In kundalini yoga practice, energy is stimulated to rise in order to balance and coordinate all chakras so that one can release negative thoughts and emotions that hinder their development and health.

Energy flows through the entire body from the charkas and the purpose of the kundalini yoga practice is to balance the chakras for increased wellbeing. On a physical level, kundalini yoga practice balances the glandular system and strengthens the nervous system.

The practice activates the energy on the physical level by reinforcing the immune system and stimulating the body's self-healing systems. Healthy people practicing kundalini yoga have reported it to reduce stress and improve sleep, and helping them tobecome more positive onsciouss and happy in life (Shakta KaurKhalsa.

The practice of kundalini yoga among chronically ill people has helped them to release pain, stress and fatigue, increase vitality and endurance and strengthen the body's natural defence.

3) White Tantric Yoga:-

White Tantric Yoga is a form of Tantra Yoga. Before you get too excited, it's not about sex. (That's Red Tantric.) According to Kundalini Yoga practitioners, White Tantric is an ancient group meditation practice that can help you release deep subconscious blocks and heal your body and soul.

Plus, according to proponents, it works at lightning speed one day of White Tantric Yoga is said to be equal to a year of meditation alone, and the effects can last for up to 40 days afterward.

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There are three three types of white tantric yoga:-

a) Wear white and bring a head covering
b) Take a medication cushion
c) Drink plenty of water

a). Wear White and Bring a Head Covering

According to Kundalini philosophy, white can extend your electromagnetic field. A strong auric field helps ground you and protect you against negative energy and increases your radiance. As previously mentioned, covering your head focuses energy to the third eye, increasing intuition.

b). Take a Meditation Cushion

You will be sitting on the floor all day. I forgot mine, so I brought a bed pillow from the hotel where I was staying. My knees and back were a wreck for days afterward. You'll also want your mat, a sheepskin if you use one, and a blanket to cover yourself during deep relaxation between meditations.

c). Drink Plenty of Water

Staying hydrated is always important in yoga. You will be meditating, and possibly chanting, from 9 a.m. to 4 p.m. Drink water before, during, and after your practice.

II. THERAPY FOR CANCER PATIENTS:-

Yoga is a 3000-year-old tradition, which in the West is regarded as a holistic approach to health. Practicing yoga regularly improves physicalstrength, endurance and flexibility. It also makes people friendlier, more compassionate and calmer while improving their self-control. Often people who practice yoga for a long period of time report changes in their life perspective and self-awarenesswhile feeling more energetic overall. This allows them to live their life more fully whilst overall feeling more energetic.

The practice of yoga connects the mind and body through coordinated breathing, movement and meditation in order to increase internal peacefulness and clarity of the mind. It is a system that is designed to develop health and happiness through a better sense of self-awareness and higher consciousness and better physical healthPeople often start to practice yoga when they are faced with some kind of suffering be that physical (pain), mental (disorder),emotional(stress) and/or spiritual (separation) There are four principles that underline yoga's healing system.

The first principle sees the human body as a holistic entity whichinclude various dimensions (body, mind, soul) that are connected to each other. An illness in one dimension will affect other dimensions. The second principle sees the individual as unique entity with unique needs and experiences.

The practice of yoga is therefore always a personal and an individual process. The third principleviews yoga as a self-empowering tool where the student becomes his or her own healer. This means they have an active role in their healing process and in their journey towards health. Finally, the fourth principle sees the individual's state of mind as essential to their healing.

Positive mind promotes quicker healing and negative mind may prolongue healing altogetherOveractivity or underactivity of stress responsive systems is associated with increased symptoms in a wide spectrum of disorders including depression and anxiety Conscious focus on breath in yoga helps one to develop awareness of the body's relaxation and tension states. According to Streeter et al (2012, 573), voluntary changes in breath patterns can account for 40 per cent of the variance in feelings of anger, fear, joy and sadness so there is a clear connection between how emotional states affect respiratory rate, depth and pattern.

During yogic chanting for example, the pattern of slow resistance breathing takes place in which longer periods of exhalation than inhalation occurs. These techniques have been shown to reduce imbalances in the autonomic nervous system leading to improved mood, decreased anxiety and improved health Controlled studies have also found that yoga-based interventions are effective for treating depression and reducing the symptoms of anxiety and stress because of the connection between the breath-based intervention and increased parasympathetic activity

Benefits of yoga:-

1. Lower fatigue
2. Reduce stress
3. Improve physical functioning
4. Sleep better
5. Lower risk of recurrence

1. Lower fatigue

Several studies have linked yoga with reduced fatigue in cancer patients. Several studies have reported a significant decrease in fatigue

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through the use of yoga, and three studiesTrusted Source showed that patients' fatigue decreased the more yoga sessions they did per week.

2. Reduce stress

Battling a life-threatening disease is physically, emotionally, and mentally stressful. Yoga may be able to help with this aspect of cancer as well.

One study found that practicing a seven-week yoga routine was able to reduce the likelihood of developing "mood disturbance" by up to 65 percent. Other researchTrusted Source has found that the reduction in stress also improves quality of life, appetite, and could be responsible for reduction in pain.

3. Improve physical functioning

In addition to everything on your mind, cancer affects your ability to move. Spending time in the hospital or sick at home can make the body stiff and sore and make it more difficult to complete daily tasks. As a regular form of exercise, yoga is a gentle way to stay limber and active.

A review of 16 trialsTrusted Source found that regular yoga practice can improve functional well-being in both cancer patients and survivors.

4. Sleep better

A combination of physical and mental stress can make sleep difficult, but healing the body requires ample rest. Yoga can help with insomnia and make it easier for cancer patients to relax at night.

Some researchTrusted Source has found yoga to be able to help improve sleep quality, efficiency, and duration.

5. Lower risk of recurrence

"It has been shown to result in decreased body fat density, which can help to reduce the risk of cancer recurrence," says Dr. DiNome of regular yoga practice. Obesity is a risk factorTrusted Source for cancer, and managing your risks is important even after a diagnosis and recovery.

Regular exercise through yoga is just one way of keeping the risk at bay.

Poses Of Yoga:-

1. Seated Spinal Twist
2. Legs up the Wall
3. Reclined Bound Angle
4. Seated Meditation

1. Seated Spinal Twist

Bellofatto says this pose can help with digestion and nausea. Start by sitting cross-legged on the floor.

1) Breathe deeply.

2) On the exhale, slowly twist your body to look over your right shoulder, placing your left hand on your right knee and your right hand behind your body.

3) Breathe deeply and hold the stretch.

2. Legs up the Wall

Also known as ViparitaKarani this pose can help combat fatigue.

1) Sit on the floor with your left side against the wall.
2) Turn to the left and bring your legs up against the wall as you lower your body into a prone position.
3) Scoot your buttocks against the wall.
4) Your shoulders and head will rest on the floor while your legs stretch up the wall in this relaxed position.

3. Reclined Bound Angle

SuptaBaddhaKonasana can also reduce fatigue and stress.

1) Begin seated and bring your feet together in front of you, with the soles facing one another,

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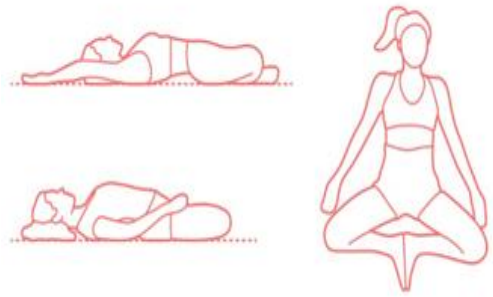
knees bent and heels pointing toward your groin.
2) Slowly lie back, supporting yourself with your arms until your back is against the floor.
3) Relax and breathe deeply, with arms out to your sides.



4. Seated Meditation

A beginner pose, seated meditation helps you to focus on breathing and mindfulness.

1) Sit on the floor with your legs crossed in front of you.
2) Feel your sitting bones in contact with the floor.
3) Lengthen your spine to sit up tall, and gently drop your chin down slightly so your neck is aligned with your spine.
4) Breathe deeply and try to keep your mind from wandering.

Psychophysiological Rationale for the Use of Yoga during Cancer:-

Treatment:

Stress can have extensive physiologic effects including telomere shortening, increased inflammatory cytokines and decreased cell-mediated immunity, which are associated with increased cancer risk and poorer cancer-related outcomes Although stress may not directly cause cancer, it can promote cancer growth and progression through neuroendocrine pathways (e.g., sympathetic nervous system, hypothalamic-pituitary-adrenal axis) that increase inflammation, promote angiogenesis, reduce anoikis and decrease the efficacy of chemotherapy.

Biobehavioral interventions such as yoga therefore havehe potential to improve cancer outcomes by decreasing stress and disrupting its effects on cancer biologyPrevious reviews assessing the potential for yoga to benefit cancer survivors have not differentiated people receiving active cancer treatment from post-treatment survivors

Initial attempts to examine the efficacy of yoga during cancer treatment versus post-treatment survivorship remain inconclusiveTherefore, the need remains for research to evaluate the role of yoga during distinct phases of cancer survivorship. This review thus focuses specifically on people

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during cancer treatment.

Methods:

To identify trials of yoga for people undergoing cancer treatment, search terms including yoga, cancer and related/Medical Subject Headings terms (e.g., neoplasm) were entered in CINAHL, MEDLINE, PsycINFO, and PubMed. Reference lists of identified articles were used to find additional relevant reports.

Inclusion criteria were:

(1) sample including children or adults undergoing cancer treatment
(2) intervention stated as yoga or component of yoga
(3) published in English in peer-reviewed journals, through October 2015.

Exclusion criteria included:

(1) samples receiving hormone therapy only
(2) interventions involving only meditation

Pediatric Studies: Non-Randomized Trials of Yoga during CancerTreatment :-

No RCTs of yoga during cancer treatment in pediatric samples have been published. Only four single-arm pilot studies have been published in pediatric oncology. Participants included a mean of 10 children with heterogeneous cancer diagnoseAll studies included parents/caregivers as yoga participants and/or proxy respondents

Intervention Characteristics:

Two pediatric studies used specific styles of yogatwo did not specify yoga style. All four included multiple yoga components, such as a combination of movements, breathing, relaxation and meditation.

However, none provided detailed class sequences or treatment fidelity.Dose varied from a single 45-minute session to 8-24, 60-minute sessions, with 1 to 3 sessions per week, spread over 3-12 weeks. Three interventions were implemented as group classes one study did not specify delivery format None reported whether they providedinstruction for home practiceInstructors in all studies were trained in teaching yoga, though only two studies used instructors with training specific to cancer or therapeutic yoga

Feasibility:

Three of the four pediatric studies examined feasibility, attrition and adherenceRecruitment rates ranged from 42% to 55%. The majority (90% of children, 100% of adolescents) completed participation in the single-session study. In the study of a 3-week program, 10 of 11 participants met the a priori criterion for feasibility (60% of sessions attended), and the median number of sessions attended was Adherence to yoga sessions in the 12-week program was 55%, with 73% completing the assessments; reasons for non-adherence included vacation and illness.

Participants withdrew from multi-session trials for reasons such as time/scheduling conflicts and disliking yoga or viewing it as “not ‘fast paced’ enough” Two pediatric studies specified that no adverse events related to yoga occurred

Outcomes:

In two studies reporting on pediatric QOL, one documented statistically significant improvement in physical function and reported clinically important differences on all QOL factors as rated by children and parents/caregivers.

Additional outcomes included statistically significant increases in children’s functional mobility, flexibility, and physical activity and statistically significant decreases in state anxiety among adolescents and parents participating in yoga Qualitative data supported these findings.

Participants in pediatric studies described yoga as relaxing and helpful for managing stress/anxiety hey additionally noted improved energy, sleep and mood, decreased nausea, and reduced use of pain medication

Adult Studies of Yoga during Cancer Treatment: Non-Randomized Trials:-

Participant Demographic:

Nine adult non-randomized studies (Table 1) enrolled a total N=155 (average N=17), primarily Caucasian (78%) and female (81%) participants Various cancer types (e.g., lymphoma, gynecologic, breast, lung) and all stages (0-IV) were represented. Treatments received while participating in yoga interventions included chemotherapy (n=61) and radiation (n=40), when specified

Intervention Characteristics:

Seven interventions were based in a specific yoga style or combination of yoga traditions Most included multiple components ofyoga, such as movement, breathing, meditation, and/or yogic philosophy whereas two studies

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included only movements or breathing.

Two studies also included facilitated group discussionsThree of the nine articles presented specific class sequences, and five indicated that movements were adapted to individual needs. One study ensured treatment fidelity by using an intervention manual and reviewing videotaped sessionsDose of yoga varied (i.e., ranged from 1-18 total sessions, 15-120 minutes, every 3 weeksto 3 sessions per week, duration 3-10 weeks).

Five interventions were delivered as group classes, and two included caregivers with patients; one occurred individually in the chemotherapy chair. Five studies additionally provided instructions for practicing at home, and one provided access to online classes.

Feasibility:

Recruitment rates reported by five studies ranged from 16% (letters sent) to 74% (approached in person) In another study, recruitment challenges prevented study completion Seven studies reported attrition rates ranging from 8% (selected from an ongoing yoga class) to 43% (selected from women receiving treatment), for reasons such as traveling distance, change in interest, scheduling difficulties, and health issues.

One study reported that those who completed the intervention had higher baseline levels of fatigue than those who withdrew, suggesting that symptoms may motivate participation Conversely, physical function at baseline was marginally significantly worse among patients who withdrew versus those who completed another studyeven studies with a range of 1-10 planned sessions reported adherence to in-person yoga sessions ranging from 59-88%.

Particularly high adherence rates were achieved in studies that included family caregivers a group discussion component Five studies also described adherence to home practice, which varied widely.

For example, in a case study of four women, home adherence was bimodal, with two participants at 80% adherence and two participants under 50%Studies measuring home practice by number of occurrences reported means between 2-3, range 0-9 while another studydescribed home practice as an average of 21 minutes per day. In the five studies thatassessed satisfaction with yoga, mean satisfaction ratings were high (i.e., >=9/10), and the majority rated yoga as useful.

Outcomes:

The nine non-randomized adult trials reported on a variety of outcomes including quality of life (QOL) and mental, physical, and spiritual health. Because these studies typically lack comparison groups and adequate power to detect statistically significant changes, outcomes provide preliminary data on effects of yoga that warrant further examination in fully-powered trials. In this early phase of study, effect sizes (indicators of clinical significance; e.g., Cohen's d: ≤ 0.2 small, ≤ 0.5 medium, ≤ 0.8 large) and qualitative data are especially informativeStatistically and/or clinically significant improvements in mental health included anxiety, depression, mood, negative affect, relaxation and overall mental health which were further corroborated by qualitative feedback.

Additional qualitative findings included improvements in cognition, benefit finding, spiritual well-being, social support, self efficacy and copingPhysical health significantly improved in terms of physical QOL, fatigue, invigoration, most-bothersome symptom, and upregulation of genes involved in immunity.

Qualitative reports supported these findings and suggested increased strength, relief of tension, physical invigoration, and use of yoga in other situations (e.g., when trying to sleep, during medical testing). In addition, yoga demonstrated a medium effect size and a dose-response effect on sleep

Adult Studies of Yoga during Cancer Treatment: Randomized Controlled Trials:-

Participant Demographics:

Thirteen randomized studiesreported in 23 manuscripts, were reviewed with a total N = 1022, including n = 504 assigned to yoga and n = 518 assigned to a control group Studies were relatively small, averaging 39 participants per study (range 8-84) assigned to yoga, and included mostly women with breast cancer (n = 927; 91%).

Age of participants ranged from 18-79. Only 5 studies reported participants' race/ethnicity, with 51% Caucasian, 25% African American, 18% Latino, 2% Asian, and 4% other or unspecified race participants. RCTs that specified participants' cancer stage included the following DCIS (n = 28), I (n = 170), II (n = 243), III (n = 186), and IV (n = 68). Treatments received while participating included surgery (n = 121), chemotherapy (n = 239), radiation (n = 660), and unspecified medical treatment (n = 164)

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Intervention Characteristics:

Among studies that described yoga style, three were based in general yoga traditions and six used a specific style of yoga. Most adult RCTs includedcombination of yoga components, such as movements, breathing, and meditation.

Three studies omitted yoga movements; two focused solely on breathing, while another featured breathing, concentration and an intention to manage uncertainty and fearDose, where specified, varied from 7-18 sessions, lasting 60-90 minutes each session, with 1 session per day to 3 sessions per week, spread over 1-12 weeks.

Six studies delivered yoga in group classesfive in one-on-one sessions and two did not specify the formatMost (9 of 13) provided audio or printed materials for home practice. Few studies provided information about the qualifications of the yoga instructors delivering their intervention and only one reported using an instructor with cancer-specific yoga teacher training.

Feasibility:

Across three studies, attrition averaged 20% prior to or immediately after randomization (i.e., before beginning yoga classesbut one trial reported 56% attrition immediately following randomization among participants assigned to yoga.

In studies with sufficient information to compare, attrition was greater among yoga participants in two studies among control participants in three studies and approximately equal across groups in four studies Two trials reported 100% completion

Outcomes:-

Several of the 13 RCTs demonstrated significant improvements in yoga participants' mental health, including positive and negative affect, distress, depression, and anxiety.

Yoga participants, compared to controls, also reported significantly better emotional, mental, social, physical, and general QOL although outcomes such as self-esteem, spiritual well-being and cognitive function were measured infrequently, yoga participants reported favorable results in these domains.

III. AYUSH SYSTEM:-

(i) Ayurveda:

The word 'Ayurveda' has derived out of fusion of two separate words- Áyu' i.e. life and 'veda' i.e. knowledge. Thus in literal meaning Ayurveda is the science of life. Ayurveda is a classical system of preventive, promotive and curative healthcare originating from the Vedas documented around 5000 years ago and currently recognized and practiced in India and many countries in the world. It is one of the most ancient healthcare systems having equal scientific relevance in the modern world, that take a holistic view of the physical, mental, spiritual and social aspects of human life, health and disease.

ii) Siddha:

The Siddha System of medicine is one of the ancient systems of medicine in India having its close bedd with Dravidian culture. The term Siddha means achievements and Siddhars are those who have achieved perfection in medicine. Eighteen Siddhars are said to have contributed towards the systematic development of this system and recorded their experiences in Tamil language. The Siddha system of Medicine emphasizes on the patient, environment, age, sex, race, habits, mental frame work, habitat, diet,appetite, physical condition, physiological constitution of the diseases for its treatment which is individualistic in nature Diagnosis of diseases are done through examination of pulse, urine, eyes, study of voice, colour of body, tongue and status of the digestion of individual patients.

System has unique treasure for the conversion of metals and minerals as drugs and many infective diseases are treated with the medicines containing specially processed mercury, silver, arsenic, lead and sulphur without any side effects.

(iii) Unani:

Unani system of medicine is a comprehensive medical system, which provides preventive, promotive, curative and rehabilitative health care. The system is holistic in nature and takes into account the whole personality of an individual rather than taking a reductionist approach towards disease. The fundamentals, diagnosis and treatment modalities of the system are based on scientific principles. The basic framework of this system is based on the Hippocratic theory of four Humours, according to which any disturbance in the equilibrium of humours causes disease and therefore the treatment aims at restoring the humoral equilibrium. The system also believes that Medicatrix Naturae (Tabiat Mudabbira-i Badan) is the supreme power,

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which controls all the physiological functions of the body, provides resistance against diseases and helps in healing naturally.

(iv)Yoga:

The word "Yoga" comes from the Sanskritword "yuj" which means "to unite or integrate." Yoga is about the union of a person's own consciousness and the universal consciousness. It is primarily a way of life, first propounded by Maharshi Patanjali in systematic form Yogsutra. The discipline of Yoga consists of eight components namely, restraint (Yama), observance of austerity (Niyama), physical postures (Asana), breathing control (Pranayam), restraining of sense organs (Pratyahar), contemplation (Dharna), meditation (Dhyan) and Deep meditation (Samadhi).

These steps in the practice of Yoga have the potential to elevate social and personal behavior and to promote physical health by better circulation of oxygenated blood in the body, restraining the sense organs and thereby inducing tranquility and serenity of mind and spirit. The practice of Yoga has also been found to be useful in the prevention of certain psychosomatic diseases and improves individual resistance and ability to endure stressful situations.

Yoga is a promotive, preventive rehabilitative and curative intervention for overall enhancement of health status. A number of postures are described in Yoga literature to improve health, to prevent diseases and to cure illness. The physical postures are required to be chosen judiciously and have to be practiced in the correct way so that the benefits of prevention of disease, promotion of health and therapeutic use can be derived from them.

(v) Naturopathy:

Naturopathy is rooted in the healing wisdom of many cultures and times based on principal of natural healing. The principles and practices of Naturopathy are integrated in the life style, if the people observe living close to nature. Naturopathy is a cost effective drugless, non-invasive therapy involving the use of natural materials for health care and healthy living. It is based on the theories of vitality, boosting the self-healing capacity of the body and the principles of healthy living. Naturopathy is a system of natural treatment and also a way of life widely practiced, globally accepted and recognized for health preservation and management of illnesses without medicines.

(vi) Homoeopathy:

"Homoeopathy" was introduced as a scientific system of drug therapeutics by a German Physician, Dr. Christian Frederick Samuel Hahnemann in 1805. While translating a medical treatise by Scottish physician and chemist, William Cullen, from English to German, in 1790, he came across a foot note under Cinchona that attributed its fever curing property to the astringent (decongestant) qualities of the drug. Being sceptical of Cullen'sremarks concerning the effect of Cinchona for curing malaria, Hahnemann experimented its effect on himself by taking repeated doses of cinchona tincture and experienced fever, shivering and joint pains.

Ministry Of Health &Family Welfare:-

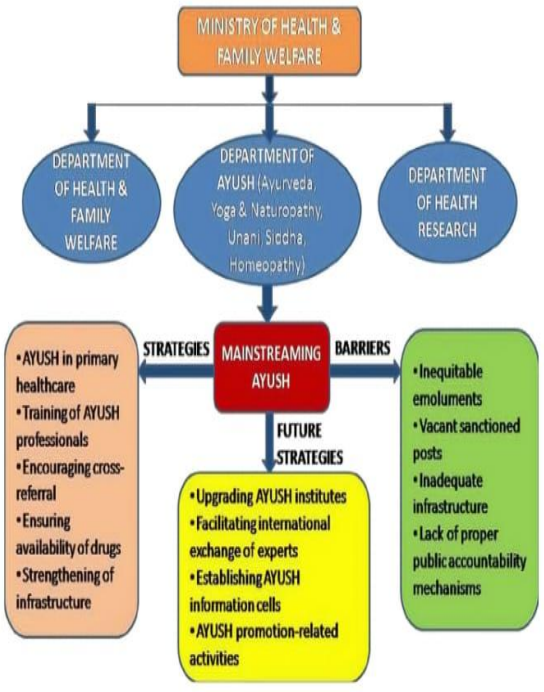

Fig. 1. Integration of departments of AYUSH and Health & Family Welfare.

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IV. LIMITATIONS:-

Among children undergoing cancer treatment, only four single-arm pilot studies of yoga have been published. Initial findings from these non-randomized trials support the feasibility, safety and potential efficacy of yoga in pediatric oncology. However, its effectiveness cannot be determined until more rigorous trials are conducted (e.g., RCTs, larger sample sizes).Nine non-randomized studies and 13 RCTs have examined the effects of yoga for adults undergoing treatment for cancer.

Results from both non-randomized and randomized trials most consistently support the efficacy of yoga to improve psychological outcomes such as depression, distress, and anxiety. Several studies, particularly RCTs, also documented improved QOL among yoga participants, though further investigation is needed to clarify the efficacy of yoga for different types of QOL (e.g., mental, social, physical, cancer-specific) and for spiritual well-being.

Researchers less frequently reported physical and biomedical outcomes, though it is unknown whether this stems from a tendency not to measure these outcomes or not to publish null findings. In both non-randomized trials and RCTs, sleep and fatigue were the most commonly measured non-psychological outcomes, generating a growing body of evidence that yoga ameliorates sleep and fatigue among people undergoing treatment for cancer.

Additional studies are needed to advance preliminary findings for other effects of treatment (e.g., nausea, surgical outcomes cognitive function) and biomarkers of stress and immunityFindings areconstrained by multiple limitations of previous research samples and methods. For example, the vast majority of studies have relied exclusively on self-reported measures. In addition, with only a few exceptions, samples predominantly include females with breast cancerPeople with Stage IV cancer of any type are rarely included in yoga trials, despite the fact that yoga may be gentle enough for individuals with advanced disease and potentially affect important outcomes (e.g., distress, QOL)Generalizability is further limited by variability in intervention protocols.

Most studies combined several elements of yoga (e.g., movement, breathing, meditation), but intervention delivery (e.g., group vs. individual; instructor-delivered vs. home practice) and dose of yoga (i.e., frequency, duration) have varied widely among studies, as have retention and adherence rates. The amount of yoga practice needed to yield effects therefore remains unknown.

In some studies yoga participants improved on outcomes such as psychological distress, fatigue and immunity while the waitlist control group worsened However, only two studies included an active control group asa result, “active ingredients” (e.g., movement, breathing) cannot be distinguished from non-specific, but potentially effective, components of yoga interventions (e.g., social support, attention).

Recruitment methods and other elements of study design may also affect participation, outcomes andgeneralizability. For example, enrollment and retention rates may be especially high when sampling from people already enrolled in yoga classes. Researchers have rarely published details of their yoga teachers training and experience specifically with people with cancer although these factors may influence participants’ adherence and efficacy of interventions.

V. CONCLUSIONS:-

The current evidence is sufficient to recommend yoga to adults undergoing cancer treatment, particularly women with breast cancer Results from existing studies suggest that yoga will lead to improvements in or buffer treatment-related changes in mental health, fatigue, sleep quality, and other aspects of quality of life.

Support for additional benefits may become apparent with further research. Treatment-related symptoms and stress may motivate some people with cancer to participate in yoga and barriers to participating in yoga during cancer treatment may be lower than other types of exercise.Some research shows an association between frequency in in yoga participation and improved outcomesAs such, reducing barriers by offering variable class schedules and formats, incorporating the use of novel technologies, and including family members is recommended.

Notably, none of the trials in this review reported any adverse events. Therefore, compared to higher-impact forms of exercise, yoga may be especially safe and appealing to people receiving cancer treatment inconclusion research has demonstrated that yoga interventions can improve psychological distress, QOL, physical function, and some biological outcomes among adults receiving cancer treatment. However, the potential for yoga to benefit people with cancer may not have been fully captured yet.

Yoga theoretically extends beyond the elements that most studies include (i.e., movement, breathing, meditation). Its broader philosophy and approach may influence healthful living as a whole (i.e., food choices, exercise, life purpose, relationships). Initial studies suggest that holistic lifestyle interventions have great potential for integration with biomedical cancer treatments.

Cancer survivors tend to live longer after diagnosis if they have normal BMI, are physically active, eat a primarily plant-based diet, abstain from tobacco, avoid harmful use of alcohol, and are not depressedSix studies delivered yoga in group classes five in one-on-one sessions and two did not specify the format Most provided audio or printed materials for home practice.

Few studies provided information about the qualifications of the yoga instructors delivering their intervention and only one reported using an instructor with cancer-specific yoga teacher training

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