

EFFECT OF INTEGRATED YOGA MODULES AND SATVIC DIET ON SELECTED RISK FACTORS AMONG MEN CANCER PATIENTS

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Abstract

Yoga's remarkable benefits for the body and mind become apparent over time. The goal of the current study was to determine how a satvic diet and combined yoga modules affected particular risk factors in male cancer patients. For the study, forty male cancer patients were split into two groups: the control group and the experimental group. Twenty male cancer patients made up the experimental group. For six weeks, the Pawanamuktasana sequence, asana, pranayama, meditation, and relaxation were practiced by the control group, which did not receive any kind of training. The psychological variable (General Mental Alertness) was measured both before and after the experiment using standardized assessments. After analyzing the data using Analysis of Covariance (ANCOVA), it was determined that among male cancer patients, the Pawanamuktasana series, asana, pranayama, meditation, and relaxation had a significant ($P < 0.05$) impact on the psychological variable (General Mental Alertness).

Introduction

In the modern world people have become quite successful in their external achievements. They have created powerful technologies and a variety of products, they are obsessed with accumulating power, wealth, property and objects and yet they have not been able to create either individual or social peace, wisdom, or happiness. They have only to look around and see the destructiveness of our weapons, the emptiness of our pleasures and entertainments, the misuse of our material and personal resources, the disparities between rich and poor, and above all, the loneliness and violence of our modern world. They see that amid all our success in the external world. They have accomplished little of lasting value. These problems will not be solved through new technological developments. Instead, the resolution to these human problems will come only when we discover within ourselves that for which all of mankind is searching inner peace, tranquility, and wisdom. This attainment is the goal of

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yoga, for yoga is the practical science intended to help human beings become aware of their ultimate nature.

Cancer is disease in which the immune system becomes weak and is unable to handle the increase in number of damaged cells. Yoga for cancer although helpful in the treatment of the disease is not a cure. It can be helpful in making the immune system stronger and can stimulate the inner forces of healing. Yoga for cancer is efficacious in relaxing the nervous system and reducing anxiety and stress which tend to impede the functioning of the immune system and the process of healing. The yoga breathing exercises for cancer helps in improving respiration, bringing balance and releasing tension. Meditation is another effective form of yoga for cancer which enables you to develop clarity and detachment so as to accept the situation and handle your fears. Practicing the various yoga poses for cancer help in eliminating the toxins, increasing the levels of energy, and improving the functioning of the inner systems and organs. Practicing yoga for lung cancer is effective in bringing relief to the symptoms like chest pain and shortness of breath.

The type of food one eats has an immense effect on our health and well being. As per yoga all food items can be classified into three types of yoga diet namely sattvik, rajasik or tamasik. Some foods create more internal commotion than others, with bloating and other digestive disturbances. However, it can also be interesting to notice how some foods have more subtle effects on the mind and your mood. Ayurveda, the sister science of yoga, offers us an intricate understanding of how different foods affect our physical health, mental well-being and even our spiritual strength. According to Ayurveda, Satvic is the pure quality of spiritual goodness and equanimity, manifested as intelligence, awareness, virtue, and joy. Satvic foods promote purity of both body and mind. In particular, a satvic diet is intended to cultivate a calm, clear and compassionate mind.

Satvic diet are soothing, nourishing and promote and maintain a quiet, steady mind as well as help to sharpen your intellect and give you a greater sense of understanding. Satvic foods are vegetarian and do not include foods derived from animals that have been harmed in any way. It is important that foods are grown naturally and do not contain preservatives and artificial flavors (Scott Gerson, 2002).

In addition to fresh, organic, whole foods, a satvic diet requires the energy and intention within the kitchen to be a calm and pleasant atmosphere for food preparation. Preparing the food with mindfulness, care and love will create energetic vibrations that are absorbed by the food that are preparing and will enter the body during digestion. The quality of our food is greatly enhanced by loving attention, including how the vegetables are cut, how the spices are ground and the way you add ingredients to the dish you are preparing.

Statement of the Problem

The research is to assess the impact of a satvic diet and combined yoga practices on particular risk factors in male cancer patients.

Review of Related Literature

Beutler et al. (2016) yoga alters spontaneous respiratory regulation and reduces hypoxic and hypercapnic ventilatory responses. Since a lower ventilatory response is associated with an improved endurance capacity during whole-body exercise, we tested whether yogic subjects (YOGA) show an increased endurance capacity compared to matched non-yogic individuals (CON) with similar physical activity levels. Resting ventilation, the

ventilatory response to hypercapnia, passive leg movement and exercise, as well as endurance performance were assessed. yoga ($n = 9$), compared to control ($n = 6$), had a higher tidal volume at rest (0.7 ± 0.2 vs. 0.5 ± 0.1 l, $p = 0.034$) and a reduced ventilatory response to hypercapnia (33 ± 15 vs. 47 ± 15 l·min⁻¹, $p = 0.048$). A yoga subgroup ($n = 6$) with maximal performance similar to control showed a blunted ventilatory response to passive cycling (11 ± 2 vs. 14 ± 2 l·min⁻¹, $p = 0.039$) and a tendency towards lower exercise ventilation (33 ± 2 vs. 36 ± 3 l·min⁻¹, $p = 0.094$) while cycling endurance (yoga: 17.3 ± 3.3 ; CON: 19.6 ± 8.5 min, $p = 0.276$) did not differ. Thus, yoga practice was not associated with improved exercise capacity nor with significant changes in exercise ventilation despite a significantly different respiratory regulation at rest and in response to hypercapnia and passive leg movement.

Gaiswinkler & Unterrainer (2016) examined how different levels of yoga involvement are related to different parameters of mental health and illness. Total samples of 455 participants (410 females) were investigated by means of an internet survey. 362 yoga practitioners (327 females) rated their degree of yoga involvement on the Yoga Immersion Scale. A control group was comprised of 93 gymnastics practitioners (83 females). All participants completed the Multidimensional Inventory for Religious/Spiritual Well-Being, the Freiburger Mindfulness Inventory and the Brief Symptom Inventory for psychiatric symptoms. Highly involved yoga practitioners exhibited a significantly increased amount of mindfulness and religious/spiritual well-being (both $p < 0.01$) and lower psychiatric symptoms such as depression ($p < 0.01$) compared to those who were only marginally/moderately yoga-involved or who were in the gymnastics control group. In accordance with the literature, yoga practice might have its biggest impact on mental health when it is part of a practitioner's worldview. Further research focusing on the impact of yoga involvement in clinical groups is encouraged.

Methods and Materials

The purpose of the study was to ascertain how a satvic diet and a combination of yoga modules altered a few risk factors in male cancer patients. For this study, forty male cancer patients from Chennai were specifically chosen at random. They are about 40 and 50 years old. Two groups of forty individuals each were present. The experimental group would participate in integrated yoga modules and a satvic diet, while the second group would serve as the control group. Pretests and posttests would be given both before and after the training. Training would be given for six weeks. Lastly, the effect of combined yoga modules and a satvic diet on the general mental alertness of male cancer patients will be ascertained utilizing the scientific method. Analysis of covariance (ANCOVA) was used to statistically examine the gathered data and the General Mental Alertness questionnaire constructed by Dr. R.P. Srivastava (Jabalpur) consisting of 52 questions.

Training Schedule

Experimental Group: Yogic practices

TRAINING SCHEDULE

TABLE - I
YOGIC PRACTICES FOR FIRST TWO WEEKS

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S.No	Yogic Practices	Repetition
1	Sitilikarana Vyayama (loosening exercises)	1
2	Surya Namaskar	6
3	Vrkshasana	1
4	Padahastasana	1
5	Halasana	1
6	Sarvangasana	1
7	Matsyasana	1
8	Bhujangasana	1
9	Shalabasana	1
10	Ustrasana	1
11	Sethubandha sarvangasana	1
12	Parvatasana	1
13	Savasana	1
14	Mahamudra	2
15	Ujjai in vajrasana	8
16	Kapalapathi in padmasana	24
17	Nadishodhana in siddhasana	8
18	Meditation	1
19	Relaxation	1
20	Yoga Nidra	1

TABLE - II
YOGIC PRACTICES FOR SECOND TWO WEEKS

S.No	Yogic Practices	Repetition
1	Sitilikarana Vyayama (loosening exercises)	-
2	Surya Namaskar	2
3	Vrkshasana	1
4	Padahastasana	1
5	Halasana	1
6	Sarvangasana	1
7	Matsyasana	1
8	Bhujangasana	1
9	Shalabasana	1
10	Ustrasana	1
11	Sethubandha sarvangasana	1
12	Parvatasana	1
13	Savasana	1

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14	Mahamudra	2
15	Ujjai in vajrasana	8
16	Kapalapathi in padmasana	24
17	Nadishodhana in siddhasana	10
18	Meditation	1
19	Yoga Nidra	1

TABLE - III
YOGIC PRACTICES FOR THIRD TWO WEEKS

Sl.No	Yogic Practices	Repetition
1	Sitilikarana Vyayama (loosening exercises)	-
2	Surya Namaskar	1
3	Vrkshasana	1
4	Padahastasana	1
5	Bhujangasana	1
6	Shalabasana	1
7	Sarvangasana	1
8	Matsyasana	1
9	Ustrasana	1
10	Sethubandha sarvangasana	1
11	Halasana	1
12	Parvatasana	1
13	Savasana	1
14	Mahamudra	1
15	Nadishodhana in siddhasana	3
16	Kapalapathi in padmasana	3
17	Ujjai in vajrasana	3
18	Meditation	1
19	Yoga Nidra	1

SATTVIC DIET SCHEDULE

Instructions on diet modifications were given to observe satvic diet chart.

SATHVIC DIET CHART

❖ WHOLE GRAINS ❖ PULSES ❖ NUTS ❖ VEGETABLES ❖ DIARY PRODUCTS ❖ FRUITS	
➤ GRAINS	... 30%
➤ DIARY PRODUCTS	... 20%
➤ VEGETABLES AND FRUITS	... 27%
➤ NUTS	... 5%
➤ PULSES, COOKING OIL, FATS	... 18%
	100%
BREAK FAST	Iddly or Pongal, Sambār, Vādai, Chatni, Banana
SNACKS	Dry Fruits or Fresh Fruits or Juice, or Green Tea
LUNCH	Rice, Sambar, Vegetables, Fruits, Curd or Butter Milk.
SNACKS	Nuts, Fruits, Veg. Soup.
DINNER	Rice or Chapathi, Dal, Veg. Salad, Fruits, Milk.
<u>NUTRIENTS</u>	
• CARBOHYDRATES	... 60%
• FATS	... 30%
• PROTEINS	} ... 10%
• VITAMINS	
• MINERALS	
• WATER	
	100%

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Results and Discussions

Table I shows the statistical comparison of the beginning and final means of General Mental Alertness among male cancer patients as a result of satvic diet and integrated yoga modules.

Table I
Analyzing the variance and computing the mean of the experimental and control groups' General Mental Alertness (Scores-in-marks)

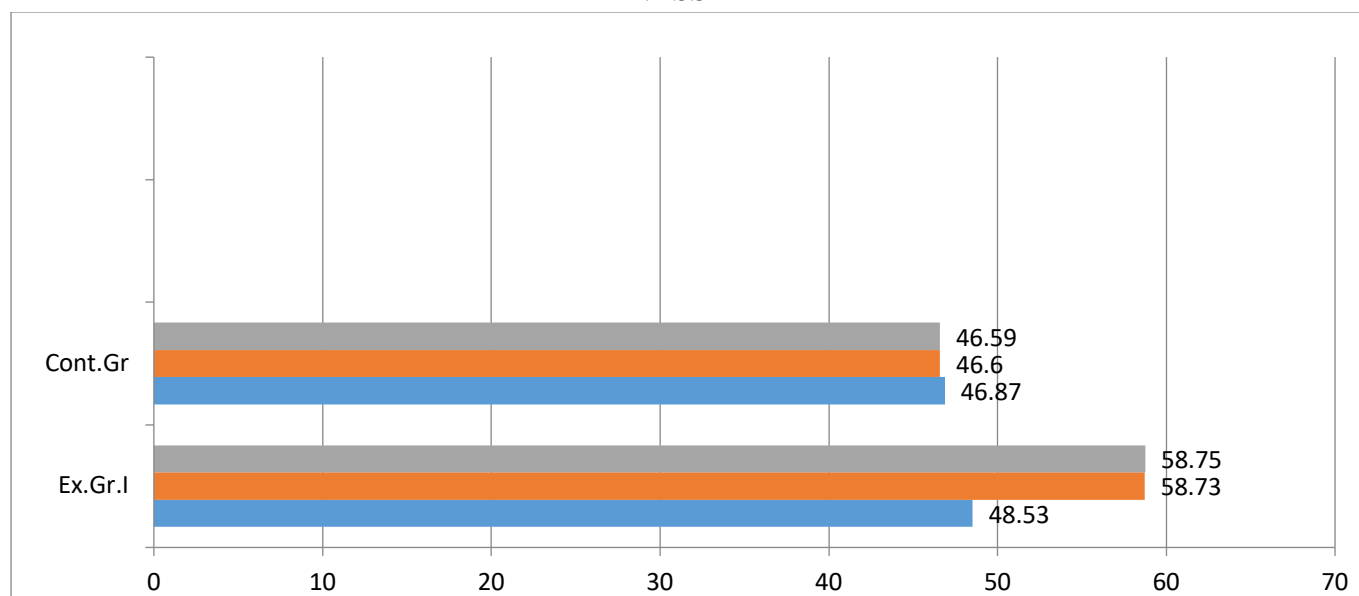
Test	Ex. Gr.	C.G	S.V	S.S	DF	M.S	"F"
Pre-test average	48.53	46.87	B	840.30	1.00	20.83	0.71
			W	819.47	28.00	29.27	
Post-test average	58.73	46.60	B	1104.13	1.00	1104.13	29.21*
			W	1058.53	28.00	37.80	
Adjusted average	58.75	46.59	B	1080.97	1.00	1080.97	27.58*
			W	1058.37	27.00	39.20	

*significant.

Table value for df 1 and 28 was 3.21 Table value for df 1 and 27 was 3.22.

The obtained adjusted mean values were presented through bar diagram in figure 1.

FIGURE - I
BAR DIAGRAM ON ORDERED ADJUSTED MEANS OF GENERAL MENTAL ALERTNESS



Discussions on the Findings of Psychological Variables

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After controlling for pre-test and post-test means and conducting a covariance analysis, it was determined that the combined yoga modules and satvic diet significantly enhanced (raised) the General Mental Alertness of the male cancer patients. The required value of 3.22 was exceeded by the achieved F value of 29.21.

Conclusion of the Research

The analysis of covariance of general mental alertness revealed a significant improvement (decrease) in both group II (control group) and the experimental group (integrated yoga modules and satvic diet). The combined impact of yoga modules and the Satvic diet may be the cause. The study's findings showed that among male cancer patients, the experimental group I—which included yoga modules and a satvic diet—improved (decreased) general mental alertness more than the control group, which received no instruction.

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