



## Effectiveness of “Rajyoga Meditation”: A Quasi-experimental study for holistic healing in cancer patients

Singh A. ✉, Sharma S. B., Rana, A., Amandeep, Kaur, A., Kaur, A., Rani, B., Kaur, G.

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### Abstract

Raj Yoga is one of the tested spiritual, holistic healing approaches nowadays used for every field for promoting self-esteem in healthy and unwell patients at mental and psychological levels. Cancer is one of the end-stage diseases that give not only physical pain but also causes psychological threats to the patient. The patient may experience grief, fear of death, loneliness, low self-esteem and other emotional changes resulting in depression and anxiety disorders. During this stage, some spiritual or holistic healing approaches are must for the enhanced wellbeing status of cancer patients, so the current study is focused on evaluating the effectiveness of Raj Yoga Meditation in cancer patients in selected hospital of Punjab. In this study, the Raj Yoga Meditation programme was introduced for 15-20 minutes per day for six consecutive days to the experimental group. Although the study period was concise, however, the results showed that there was a significant difference between pre-test ( $141.64 \pm 18.9624$ ) and post-test ( $167.400 \pm 23.0922$ ) wellbeing scores at the 0.05 level of significance.

**Key words:** *Cancer, Cancer Patients, Holistic Healing, Rajyoga Meditation*

### Introduction

“Raj yoga meditation helps the individual to return to a state of inner peace, personal power and self-worth through re-kindling the soul’s original qualities and virtues which are effective for the overall wellbeing of individuals (Sain *et al.*, 2020). Chronic disease profile, especially Cancer, affects the patient physically, not only mentally, but also socially & spiritually too. According to Indian population census data, the rate of mortality due to Cancer disease was high in India which includes the estimated number of 2.25 million people are living with this disease and every year approximate 11, 57,294 lakh people do their registration as a new case and 7,84,8217 cancer-related deaths have also been reported on the basis of studies data depicted that 7.34% male & 6.28% females are having the risk of dying from Cancer before the age of 75 years (Anonymous, 2020a). Cancer is one of the chronic diseases, which is the second leading cause of mortality estimated 9.6 million deaths in 2018 globally, and it has been reported that 1 in 6 deaths was due to Cancer. (Anonymous 2020b) Cancer

### Author’s Address

State Institute of Nursing and Paramedical Sciences, Badal, BFUHS Faridkot (Pb), India  
**E-mail:** anjalisingh26july@gmail.com

affects the patients physically, mentally, socially and spiritually. On the basis of Government survey report of Punjab depicts that Malwa region having the highest number of cancer patients which are approximate 107 in 100,000 populations. Four districts, i.e. Muktsar, Mansa, Bathinda and Ferozepur districts are on the top in cancer incidence list, which includes approximate 136 cancer cases per 100,000 people. There are multiple factors responsible for this disease; one of them that becomes a significant risk factor is chemical toxicity which covers the excessive level of arsenic and uranium & use of pesticides. It has also been found that smoking & consumption of alcohol also aggravates the risk of Cancer in malwa region (Anonymous 2020b). The Rajyoga is an inner approach like a mobile device to be used anywhere, anytime, unobtrusively as eternal technology just like an e-Health goal to reach everyone wherever he/she is, i.e. beyond the geographical terrain. Rajyoga meditation is an ancient system of medicine believed to harmonize spiritual, mental and physical energy which helps in enhancement of power to lead a stress-free life (Kiran *et al.*, 2017). With the help of meditation, an individual can

experience a natural state of happiness by the development of soul's inner values & powers which opens a pathway to true peace of mind. On the basis of studies, Raja means 'a King' and yog or Yoga means 'a connection or relationship'. Rajyoga is the highest form or Supreme yoga by practising & by connecting with the supreme soul, the Soul becomes king or master of all senses (Anonymous 2020c). It has been found that long term spiritually focused meditation practice contributed to enhanced wellbeing and resilience for subjects in cancer diagnosis and further treatment challenges. It helps the cancer patients to bring awareness about seeing the self as soul and enhancement of spiritual energy by connecting with the supreme soul. Spiritual energy is distinct from the body, which is an important source of spiritual strength and growth for cancer survivors (Agarwal *et al.*, 2020). In another study, it has been found that Rajyoga meditation helps to maintain a patient's biochemical and haematological profile during breast cancer treatment (Goyal *et al.*, 2018). So Brahma Kumaris Rajyoga meditation technique revived by Rajyoga education and research foundation is scientifically proven not only for an enhanced quality of farm production but also for the wellbeing of farmers who practise this meditation (Sain *et al.*, 2020).

Therefore based upon the Research studies & reviews of Rajyoga meditation, personal experiences of the researcher and in-depth consultations with experts of Rajyoga meditation encouraged the researcher to make an effort to conduct the research study on cancer patients. So the current study is entitled "a quasi-experimental study to assess the effectiveness of Rajyoga meditation for holistic healing on wellbeing status among cancer patients at selected cancer hospitals of Punjab".

## Materials and Methods

In this study, a quasi-experimental design with non-probability convenient sampling technique was used with sample size 50. The current study was conducted in Guru Gobind Singh Medical College and Hospital (GGSMCH) Faridkot, Punjab, India. The study was conducted in the day-care centre and cancer ward of GGSMCH, Faridkot. All the admitted patients who were willing to participate in

the study were taken as study subjects. Rajyoga meditation was provided by the students who got trained & certified by Brahmakumaris Rajyoga meditation centre, Faridkot, Punjab, India. On the first day of study, pre interventional level of wellbeing status was assessed among subjects in the experimental and control group by using standardized Singh & Gupta wellbeing scale. A structured Rajyoga meditation programme included the sessions, which consisted of knowledge and meditation sessions. The sessions were conducted with the help of lectures, audios (meditation music) and meditation commentary by students. Every day 25-30 minutes session was held by the trained students, i.e. 5-10 minutes devoted to meditation music and commentaries and 15-20 minutes were devoted to giving a lecture to the cancer patients. In the quasi-experimental study design, 50 participants (25 in experimental and 25 in the control group) were selected by using a non-probability convenient sampling technique. The study was approved by the ethical committee of the state institute of Nursing & paramedical sciences Badal and informed consent was taken from each participant. Data were collected using standardized Singh and Gupta (2001) wellbeing scale. The tool consisted of three sections as under:

### Section A

**Part 1: Socio-demographic profile:** It consisted of ten items as age, gender, religion, education, occupation, income, type of family, marital status, dependency status and dietary pattern.

**Part 2:** It consisted of 8 items which included medical diagnosis, stage of Cancer, present health problem and ongoing treatment, duration of continuing treatment, no of hospitalizations after being diagnosed, other continuous complementary therapy and other medical condition.

**Section B:** It consisted of planned Rajyoga meditation programme/Training- It had two parts.

**Part A:** The knowledge regarding Rajyoga. The sessions were conducted by lectures, audios (meditation music) and everyday meditation commentary.

**Part B:** Meditation session: The knowledge as in part A was followed by everyday meditation session 15-20 minutes with commentaries and audios (mediation music) by trained students. It included experiencing and realizing self as a soul, realizing and experiencing "supreme soul",



connecting with the supreme soul to charge and rejuvenating them. The total time for meditation sessions was 25-30 minutes every day.

**Section C:** Singh and Gupta wellbeing scale (2001) A 50 items standardized scale to assess the effect of Rajyoga meditation in the subjects. The items were related to physical, mental, emotional, social and spiritual wellbeing. It consisted of 29 positive items and 21 negative items. All items to be scored on 5 points Likert scale from 1 to 5 with total 50-250 scores depending upon the responses of subjects.

## Results and Discussion

As has been depicted in Table 4 and fig 1, while comparing, it was found that in the experimental group the pre-interventional mean  $\pm$  SD was  $141.640 \pm 18.9624$  and the post interventional mean  $\pm$  SD was  $167.400 \pm 23.0922$ ,  $t=16.257$ ,  $df=24$  was significant. On the other hand, in control group pre-interventional mean  $\pm$  S.D. was  $144.680 \pm 21.2127$  and post interventional mean  $\pm$  S.D. was  $145.480 \pm 21.8806$ ,  $t=2.889$ ,  $df=24$  was non-significant. Hence, there was a significant

**Table 1: Frequency and percentage distribution of cancer patients (experimental and control group) according to demographic variables**

Variables	Experimental Group (n=25)		Control Group (n=25)	
	f	%	f	%
1.Age (in years)	2	8%	1	4%
a) 20-35 years	8	32%	10	40%
b) 36-50 years	13	52%	13	52%
c) 51-65 years	2	8%	1	4%
d) 66-80 years				
2.Gender	9	36%	6	24%
a) Male	15	60%	19	76%
b) Female				
3.Religion	6	24%	5	20%
a) Hindu	0	0%	1	4%
b) Muslim	19	76%	19	76%
c) Sikh	0	0%	0	0%
d) Christian				
4. Education	14	56%	13	52%
a) Illiterate	4	16%	4	16%
b) Primary	6	24%	4	16%
c) Secondary	1	4%	2	8%
d) Senior secondary	0	0%	2	8%
e) Post graduation				
5. Occupation	1	4%	2	8%
a) Agriculture	15	60%	17	68%
b) Housewife	3	12%	2	8%
c) Labourer	5	20%	4	16%
d) Private job	1	4%	0	0%
e) Govt. job				
6. Income (per month in rupees)	15	60%	9	36%
a) Less than 10,000	7	28%	10	40%
b) 10,001-20,000	0	0%	4	16%
c) 20,001-30,000	3	12%	2	8%
d) more than 30,000				
7. Marital status	22	88%	23	92%
a) Married	1	4%	1	4%
b) Unmarried	2	8%	1	4%
c) Widow/widower	0	0%	0	0%
d) Any other significant				



8. Dietary pattern	16	64%	21	84%
a) Vegetarian	9	36%	4	16%
b) Non- vegetarian				
9. Medical diagnosis	3	12%	2	8%
a) Cancer of respiratory system	10	40%	8	32%
b) Cancer of reproductive system	3	12%	4	16%
c) Cancer of breast	7	28%	7	28%
d) Cancer of gastrointestinal system	1	4%	0	0%
e) Cancer of haematological system	0	0%	3	12%
f) Cancer of integumentary system	1	4%	1	4%
g) Cancer of lymphatic system				
10. Ongoing complementary therapy	0	0%	0	0%
a) Counselling	1	4%	1	4%
b) Yoga	6	24%	6	24%
c) Meditation	18	72%	18	72%
d) Not any				

As per the socio-demographic profile 60% patients were females in the experimental group and 76% in the control group, majority and equal percentage belonged to Sikh religion, i.e. 76% in both groups, 60% subjects were housewives in the experimental group and 68% in the control group, 88% subjects were married in experimental, and 92% in the control group, 64% subjects were vegetarian in experimental and 84% in the control group. Ongoing complementary therapy was taken by 72% subjects in both groups.

**Table 2: Mean and standard deviation of post interventional level of wellbeing status among cancer patients in the experimental and control group**

Group	Mean score	Standard deviation
Experimental	141.640	18.9624
Control	144.680	21.2127

Pre interventional mean score for the experimental group was found 141.640 and S.D. 18.9624, whereas pre interventional mean score for the control group was 144.680 and S.D. 21.2127

**Table 3: Mean and standard deviation of pre interventional level of wellbeing status among cancer patients in the experimental and control group (N=50)**

Group	Mean score	Standard deviation
Experimental	167.400	23.0922
Control	145.480	21.8806

Post interventional mean score for the experimental group was 167.400 and S.D. 23.0922, whereas post-intervention means score for the control group was 145.480 and S.D. 21.8806

**Table 4: Comparison of pre and post interventional level of wellbeing status among cancer patients in the experimental and control group**

		Wellbeing Scores				Paired t test		
		Pre test		Post test				
Group	N	Mean	SD	Mean	SD	df	t test	Result
Experimental	25	141.640	18.9624	167.400	23.0922	24	16.257	Significant
Control	25	144.680	21.2127	145.480	21.8806	24	2.889	Non-significant
Unpaired t test	df	48		df	48			
	T test	-534		T test	3.445			
	Result	Non-significant		Result	Significant t			



difference between pre and post-interventional well-being status in the experimental group. Meditation is widely accepted as a beneficial health practice, and nowadays, many organizations offer training in meditation. Raja yoga is one of the known cost-effective methods and does not need a long time for the results. It is known as one of the highest of all teachings because it works on "self as soul" soul and a complementary method to practically prevent and manage physical, mental, social, emotional and spiritual problems. It is readily available feasible in almost all parts of the world. There are 8500 centres of Brahma kumaris in all over India and in >140 countries.

Although the literature is scarce regarding the effect of Rajyoga meditation on cancer patients. In the current study, results revealed that although the study period was significantly less. However the results showed that the wellbeing status of subjects significantly improved with interventions of Rajyoga meditation on the basis of study findings of one study 52% of subjects reported a high wellbeing status, 48% showed average wellbeing whereas none of the subjects reported in the category of a low level of wellbeing status. (Singh *et al.*, 2019). In another quasi-experimental study (Singh *et al.*, 2019) conducted on addicted patients with non-probability convenient sampling technique and 60 samples were taken. The effectiveness was evaluated by standardized Singh and Gupta wellbeing scale. A similar type of findings showed, i.e. statistically significant at the

0.05 level in the wellbeing status of the experimental group between pre-test ( $148.47 \pm 15.589$ ) and post-test ( $178.20 \pm 18.983$ ). Therefore, from the above findings, it can be concluded that Rajyoga meditation is effective in improving overall wellbeing status of subjects. (Singh *et al.*, 2018). Secondly, in the current study, the experimental group showed that there was a significant difference between pre-test ( $141.64 \pm 18.9624$ ) and post-test ( $167.400 \pm 23.0922$ ) wellbeing scores at the 0.05 level of significance.

In a similar experimental study conducted by (Maini *et al.*, 2011) highlighted the hemodynamic and the biochemical effects of Rajyoga meditation on the blood pressure, heart rate and ECG where 100 healthy people were selected from the Brahmakumaris Ashram, Amritsar. The subjects were categorized into two groups. Group-1 included 50 subjects in the age groups of 25-50 years who were performing Rajyoga meditation regularly for at least one hour a day from last 2-5 years. Group-2 did not perform any meditation. The results showed a statistically significant mean value of heart rate in the meditator group, which was  $69.39 \pm 5.26$ , and it was  $81.66 \pm 3.66$  in the non-meditator group. The results of systolic and diastolic blood pressure were also found significant ( $p < 0.001$ ). The study concluded that Rajyoga had positive effects on the cardiovascular system and reduced the risk of developing cardiovascular diseases (Maini *et al.*, 2011).

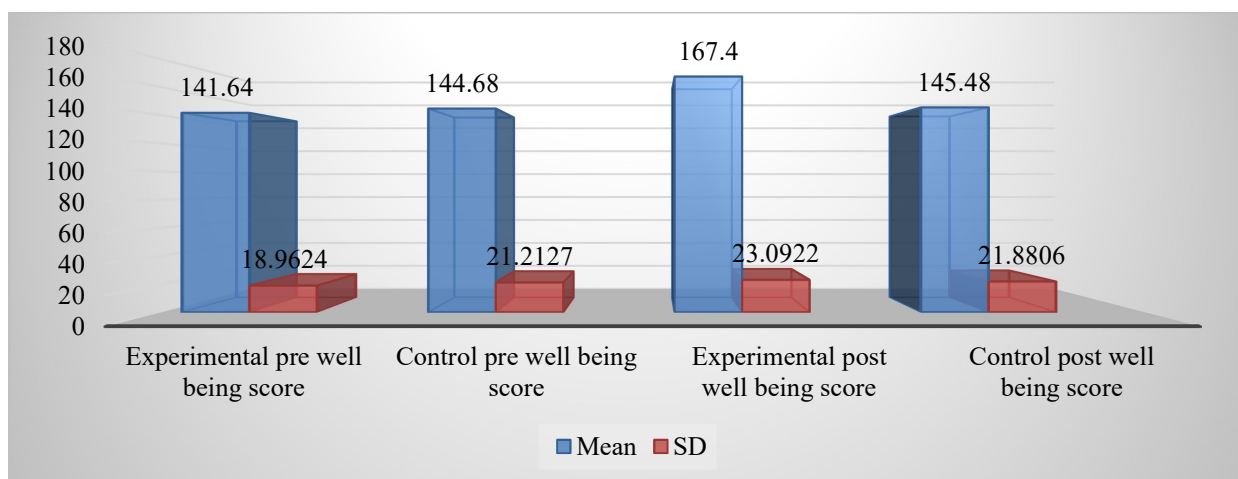


Figure 1: Comparison of pre and post interventional level of wellbeing among cancer patients in the experimental and control group (Bar diagram)

## Conclusion

Although the study period was concise, however, the results showed that there was a significant difference between pre-test ( $141.64 \pm 18.9624$ ) and post-test ( $167.400 \pm 23.0922$ ) wellbeing scores at the 0.05 level of significance. Although the primary study was limited to 50 samples, almost all the patients reported enhanced wellbeing and inner peace after the intervention. The study concluded that Rajyoga meditation is effective in the enhancement of wellbeing status of cancer patients.

## Future Scope of the Study

- A sample size of the study, i.e. 50 cancer patients; hence it is difficult for broad generalization. Pilot and main study were conducted in the same setting due to pandemic COVID-19. It should be done on a large scale for broad generalization.
- The scope is not limited to a sample but is as broad as every human of the planet. Every individual, politician, health administrators etc. should be sanitized on a large scale for its importance.
- It is strongly recommended Rajyoga meditation must be implemented to each and every individual whether in all the professions, households to all age groups, hospitalized patients and their families as it is the most significant necessity of today when the whole global environment is stricken with Pandemic COVID-19 and fear and terrors all around the entire planet.

## Conflicts of interest

The authors declare equal contribution and mutual consent with all the parts of the research. Also, no conflict of interest is there with any organization about the materials discussed in this manuscript.

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