

# Assess the Side Effects and Coping Strategies Adopted by Cancer Patients Receiving Radiation Therapy

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## Abstract

**Background:** Cancer affects everyone and represents a tremendous burden on patients, families and societies. The principal means for treating cancer (surgery, Chemotherapy and radiation therapy) are very effective; however, all such therapies come with the risk of substantial side effects. **Aims and Objectives:** The present descriptive study was conducted to assess for side effects experienced and the coping strategies adopted among 50 cancer patients receiving Radiation therapy treatment at Pravara Rural Hospital. The data were collected by using the self prepared; and validated rating scales. The results were analyzed and interpreted using descriptive and inferential statistics. **Results:** Result revealed that patients receiving Radiation therapy had variety of side effects with wide range; and patients followed many things to make the side effects more acceptable and easier to adopt with. There was Significant association was found between the side effects and type of cancer; coping strategies with sex and type of cancer (Pd<sup>0.05</sup> level). There was significant positive relationship were found between side effects and coping strategies. **Conclusion:** It is essential to raise awareness on cancer treatment and its impact on health; and develop health seeking behaviors among the patients and caregivers to provide better cancer care and improve the quality of life.

**Keywords:** Side effects; Coping strategies.

## Introduction

It is stated that side effects are unwanted reactions to medications or therapy these effects can happen when you start a new medication, decrease or increase the dose of a therapy, or when you stop using a medication or therapy.[1]

More than 60% of all clients with cancer receive Radiation therapy at some point during the course of their disease. Radiation therapy may be used as a primary, an adjuvant, or a palliative treatment. Primary-it is the only treatment used and aims to achieve local cure of the cancer (E.g. early- stage Hodgkins diseasae, skin cancer, prostate cancer, carcinoma of the cervix and cancer of larynx). An adjuvant treatment- based on either preoperatively or postoperatively to aid in the destruction of cancer cell (e.g. colorectal cancer, early breast cancer).[2]

The symptoms and its impact on quality of life among 57 cancer patients receiving radiation therapy; findings revealed that the most frequently reported as severe (score >7) before radiotherapy were fatigue (17%), pain (15%), and lack of appetite (15%). During radiotherapy fatigue (32%), pain (24%), and sleep disturbance (24%) were most frequently reported as severe. The impact of symptom. Severity on function was significantly worst during radiotherapy. Specifically, general activity and work reported to be most impaired prior to and during radiotherapy.[3]

However the experience of fatigue and self – management of cancer patient undergoing radiation therapy; study finding shows that for relief of fatigue, five categories of self –management were used:

1. Getting moral support from family and friends;
2. Practicing religion, reciting prayer, doing merit, mediating
3. Practicing self –care for symptomatic problems;
4. Accepting the situation and doing the best of one's life; and
5. Consulting with doctor and nurse.[4]

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Thus the purpose of this study was to assess the severity of side effects and coping strategies adopted by cancer patients receiving radiation therapy treatment according to different demographic characteristics.

**Material and Methods**

This descriptive explorative study was conducted among 50 cancer patients receiving Radiation Therapy treatment at Pravara Rural Hospital, Loni (Bk). Before commencement of the study, ethical approval was obtained from the Institutional Ethical Committee, and official permission was received from the authority. Patients who were above 18 years of age, receiving radiation therapy treatment, able to read Marathi and willing to participate in the study were included in the study by using the non – probability; purposive sampling method.

The patients who are below 18 years of age and not willing to participate in the study were excluded from the study. The purpose of the study was informed and explained to the participants and those who voluntarily agreed to participate in the study and gave an informed consent for the same were asked to fill the rating scale according to the response

format provided in the questionnaire. Material used is self prepared; and content validated rating scale as questionnaire to collect the data. For data analysis, each response like ‘very often’, ‘often’, ‘sometimes’, ‘rarely’ and ‘never’ were given a score 5, 4, 3, 2 and 1 respectively. Individual scores were summed up to yield a total score. The collected data was tabulated and analyzed using appropriate statistical methods like descriptive statistics (mean, SD and mean percentage) and inferential statistics (chi – square test).

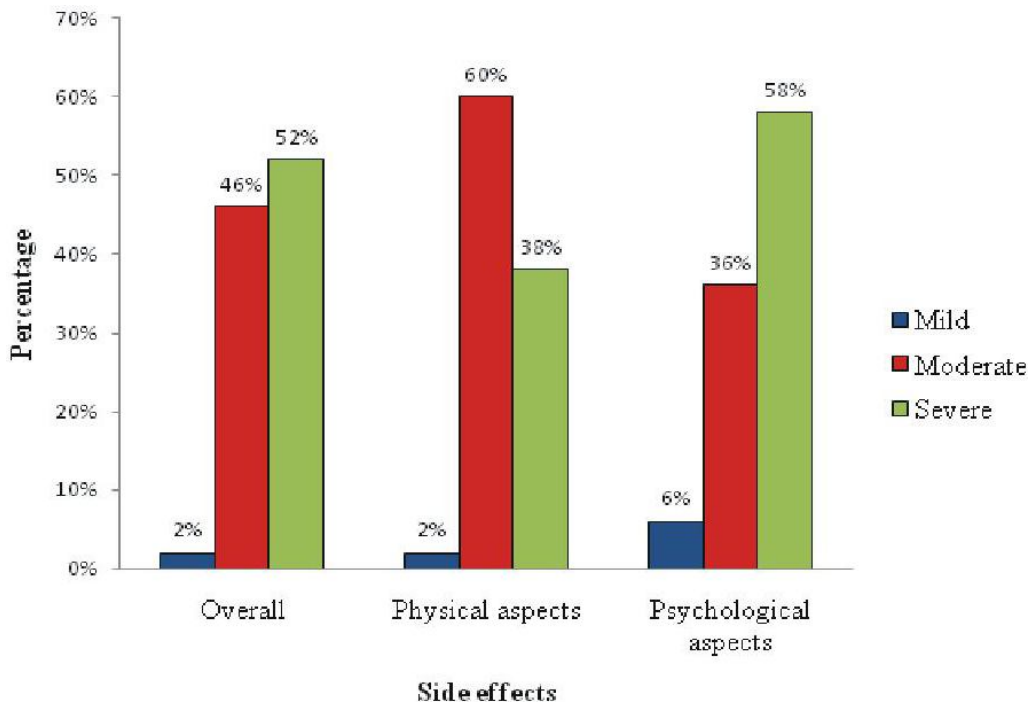
**Results**

*Findings Related to Socio Demographic Variables*

Highest percentage (36%) were in the age group of ≥ 58 years, (52%) of patients were females, (48%) were males, (34%) were illiterate, (36%) had Agricultural work, (74%) belongs to joint family, (46%) had per capita income of Rs.501-1000/- and (80%) were Hindus.

*Findings Related to Clinical Characteristics*

**Bar Diagram Showing the Level of Side Effects Experienced by Cancer Patient Receiving Initial Course of Radiation Therapy**



Majority (94%) had no family history of cancer, (36%) had habits use of tobacco misers, (40%) had head and neck type of cancer, (66%) had less than 6 months duration of cancer, (94%) of patients belongs to carcinoma category, (44%) had Stage-III cancer, (64%) had adjuvant therapy treatment and most (96%) of patients had information on radiation therapy via health care professionals.

#### *Severity of Side Effects Experienced*

The study finding shows that the overall side effects mean score was (32.4±6.2) which is 64.8% of the total score, indicates cancer patients had moderate level of side effects. However the cancer patients had severe level of side effects on 'psychological side effects' with the mean score of (7.3±2.3) which is 73%, and in relation to 'physical side effects' patients had moderate level side effects with mean score of (25.1±4.1) which is 62.9%.

#### *Coping Strategies Adopted*

The study finding shows that the overall coping strategies score was (156.9 ± 21.05) which is 62.76 % indicates cancer patients had 'partially adaptive coping'. However the highest mean score (34.8± 4.9) which is 69.6 % for the coping strategies of psychological side effects, shows patients had 'completely adaptive coping' whereas the physical side effects mean score (122.1± 17.2) which is 61.1% indicates patients had 'partially adaptive coping'.

#### **Discussion**

The overall side effects mean score was (32.4±6.2) which is 64.8% of the total score indicates cancer patients had moderate level side effects. However the higher mean score (7.3±2.3) which is 73% for 'psychological side effects' indicates patients had severe level of side effects and the lower mean score (25.1±4.1) which is 62.9% for 'physical side effects' indicates patients had moderate level side effects. This findings were supported by Chen SC, Lai YH, liao CT, Lin CC and Chang JT (2010) reported that the cancer patient receiving radiation therapy had moderate level overall symptoms and the severity of symptoms significantly related to dose

and duration of radiation therapy.[5]

The highest mean score (168.4±21) which is 68.1% was obtained by the cancer patients who were secondary educated had completely coping. This finding consistent with the study carried out by Wilson *et al.*(2000) that cancer patients need more education about cancer and its treatment, needs more emotional support.[6]

#### **Conclusion**

These results mean that radiation therapy has adverse effects (Physical and psychological) because of the changes in cell biology and toxicity. The findings revealed that though the cancer patients had severe psychological side effects, the side effects vary from mild to severe level. It was found that patient receiving initial course of radiation therapy had partially adaptive coping strategies for the therapy related side effects. So it is emphasized that the cancer patients and their care takers should have knowledge (assessment and care) and positive attitude to compact cancer and its related health consequences and to improve the quality of life.

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