
REVIEW ON CANCER SIDE EFFECTS AND THEIR THERAPIES

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Abstract:

According to World Health Organization globally, Cancer is certainly considered main reasons of death. It is been estimated that in 2004 about 7.4million humans died of cancers and if it is continued, more than 83.2 million patients could have died by 2020. The incidence of cancer is increasing every day around the world. Advances in cancer screening and cancer treatment have dramatically improved survival for all cancer patients worldwide. To investigate about various common physical side effects, prevalence, severity & estimation experienced by chemotherapy patients .

Thus, study present this narrative review to summarize previous sixteen studies on side effects of chemotherapy and therapies like PMRT & MT on cancer patients on reducing the symptoms of cancer patients. It was shown that significant differences in the prevalence of most symptoms depending on the primary site of cancer and the hospice. Alarm manifestations of breast, colorectal,

urinary tract, and pleura tumor are prevailing in the general culture .Fatigue, restlessness, pain and loss of appetite were ultimate accepted and most passionate . It was concluded that, patients had many side effects physically and mentally during completion of chemotherapy treatment, numbness or tingling sensation and fatigue for physical symptoms and nervousness and sleeping disturbances were the common psychological symptoms. In the article PMRT is found to be effective in decreasing the physical symptoms of insomnia and fatigue and psychological health status in cancer patients receiving chemotherapy and more emphasizes was given on training, awareness and practice of PMR therapy just before chemotherapy improves reduction in the severity of side effects, and improvement of quality of life and for reducing Stress and anxiety. Whereas,

tension, cavity and pain of patients accompanying tumor, accompanying observed optimum invasion. It was persistent that complementary approaches encompassing of sounds that are pleasant, harmonized therapy and PMRT had certain belongings on Chemotherapy-inferred anxiety, sickness in stomach and disgorging and presented improvement in sleep.

Keywords: Cancer, Chemotherapy, Side Effects, Music Therapy, Progressive Muscle Relaxation Technique

INTRODUCTION

According to World Health Organization globally, Cancer is certainly considered main reasons of death. It is being estimated that in 2004 about 7.4million humans died of cancers and if it is continued, more than 83.2 million patients could have died by 2020. Around 85,50,000 new most cancers instances are recognized in India each year. Among them there are 4,41,405 woman sufferers and 393,948 are male, affected with most cancers. Cancers can be defined as an uncontrolled growth of cells that can reach different parts of the body. About 8.2 million human beings die from the ailment every year, accounting for his 13% of worldwide deaths. Furthermore, most cancers instances are expected to growth with the aid of using 70% over the subsequent 20 years. Cancer is the second one main reason of dying in lots of countries. The prevalence of most cancers is growing each day across the world in many countries. The incidence of cancer is increasing every day around the world. Advances in cancer screening and cancer treatment have dramatically improved survival for all cancer patients worldwide.

Cancer can be defined as an uncontrolled growth of cells that can reach different parts of the body. About 8.2 million people die from the disease each year, making her 13% of all deaths worldwide. Furthermore, cancer cases are estimated to increase by 70% over the next 20 years. Cancer is the second leading cause of death in many countries. The incidence of cancer is increasing every day around the world. Advances in cancer screening and cancer treatment have dramatically improved survival for all cancer patients worldwide.

So, it is main to plan for the future fitness of contemporary's tumor patients by achieving fitness-embellishing measures during and following in position or time situation. The World Cancer Research Fund revealed that cancer is the leading cause of death worldwide, and in 2008, 7.6 million people (about 13% of all deaths) died from cancer. He also concludes that malignancy will touch rise toinadditionto 11 heap by 2030. The main means affected by malignancy and inducing extinctio n are lung (1.4 heap), stomach (740,000), liver (700,000), colon (610,000), and feelings (460,000). (World Cancer Research Fund International, 2011)

In first review article, study search out obtain a trustworthy guess of manifestation prevalence in sufferers accompanying tumor by performing a orderly review of studies and their connection with the status of growth of tumour patients.

We will more survey alarm manifestations for breast, colorectal, urinary area , and bronchi tumour in the general public.

According to WHO (2018), it is estimated that cancer is responsible for about 9.6 million deaths in 2018. Chemotherapy is used to treat the advanced stage of cancer but is associated with most common side effects which are Pain, Insomnia, Fatigue, Anorexia, Nausea and vomiting. In this article,

study proposed to judge the effectiveness of Growing Influence Entertainment Therapy (PM

RT) on Material Syndromes & strength status with Malignancy Patients taking A destructive agent. The purpose was to investigate PMRT training on sleep quality, fatigue, stress and coping with undergoing adjuvant chemotherapy.

In order to compose third review paper, we introduced Musical therapy effectiveness for chemotherapy side effects. To evaluate the effectiveness of sounds that are pleasant, harmonized remedy on the condition of life, tension, revulsion, disgorging, depression and pain, length of life in care, physical status, and relationship of death occurrence with people diagnosed with cancer. In addition, we looked at anticipated judgment of practicability, acceptance, and potential advantageous belongings of sounds that are pleasant, harmonized therapy in critically ill tumor patients on a specific relief care inpatient custody.

In fourth review item, study proposed to evaluate the most universal tangible aftereffects experienced by a destructive agent cases. Their ideas of these side effects and educational needs from dispassionate pharmacists were again evaluated, side effects of chemotherapy among cancer patients. To understand the experiences of patients during outpatient-based chemotherapy and to check the frequency, severity and distress of symptoms that chemotherapy induces in cancer patients. Cancer patients experience a variety of symptoms undergoing chemotherapy that can be physical or psychological, which may vary in terms of occurrence, severity and distress.

OBJECTIVES

- To identify prevalence, severity & estimation of symptoms for cancer.
- The purpose is to identify the Progressive Muscle Relaxation Technique (Modified Jacobson Relaxation Technique) on cancer patients
- To investigate the Music therapy intervention on selected side effects of chemotherapy.
- To investigate about various common physical side effects experienced by chemotherapy patients.

METHODOLOGY

In the first article, cross-sectional study with 107 patients evaluated using a socio-demographic instrument, the clinic tension and misery scale (HADS) and the personal satisfaction scale (EORTC-QLQ-C30 Pearson's correlation test was used to evaluate the relationship between symptoms and quality of life. Results uncovers weakness (76.6%), sleep deprivation (47.7%), torment (42.1%), loss of craving (37.4%), anxiety (31.8%) and depression (21.5%) were identified. In these studies, symptom prevalence was assessed by a questionnaire, a standardized interview, or the medical record. Then another research investigation indicated the Cross-sectional questionnaire survey with 13777 persons aged 20 years and older.

Prevalence estimates of having experienced cancer alarm symptoms with a response rate of 69%, 3.3% of responders stated a lump in their feelings, 5.7% stated blood in bowel drives, 2.2% stated ancestry in urine, and 6.5% stated vomiting for in addition six weeks within ancient times 12 months. In study, addition of 44 studies (containing 25,074 patients) on overall syndrome predominance (Group 1) and six studies (containing 2,219 patients) on syndrome predominance during the last individual to two weeks of existence (Group 2). In the study, prevalence of eight major symptoms and performance status were assessed prospectively among 1840 cancer patients in seven and result depicts moderate to severe pain was 51%, ranging from 43% in

stomach cancer to 80% in gynecological cancers. Nausea was most prevalent in gynecological (42%) and stomach (36%) cancers, and dyspnea (46%) in lung cancer. There were statistically significant differences in the prevalence of most symptoms depending on the primary site of cancer and the hospice.

Author Year	Sample Size / Setting/ Research Design	Assessment Tools	Data collection and Result
Marina S., Feb,2020	Cross-sectional study with 107 patients	Hospital anxiety depression scale (HADS) and the quality of life scale (EORTC-QLQ-C30).	Prevalence of female patients (56.1%), in which Fatigue (76.6%), restlessness (47.7%), pain (42.1%), loss of appetite (37.4%), worry (31.8%) and despair (21.5%) were ultimate common and most passionate syndromes. Worry and depression manifestations bestowed a negative equating with condition of history and positive equating accompanying tangible symptoms.fatigue, insomnia, pain and loss of appetite
Svendsen RP,,Sep , 2010	Cross-sectional with 13 777 inhabitants	Questionnaire survey	With a response rate of 69%, 3.3% of responders stated a lump in bosom,5.7% stated blood in bowel evolutions, 2.2% stated ancestry in urine, and 6.5% stated choking for as well six weeks .Overall, 15.3% of the females and 12.7% of the men stated bearing experienced not completely individual tumor alarm symptom inside ancient times 12 months.
Saskia, M., July, 2007,	Systematic review of 50 studies in which 25,074patients on in general side effect commonness (Gathering 1) and 2,219patients on side effect during the final remaining one to	Questionnaire, a standardized interview, or the medical record.	Result identified five symptoms(fatigue, pain, lack of energy, proneness, and greed misfortune) occurred in in addition to 50% of the subjects of Group 1. Pressure loss happen significantly more often in Group 2 compared to Group 1, and pain, nausea, and urinary symptoms occurred significantly less often.

	about fourteen days of life (Group 2).		
Vainio A, Auvinen A. , 1996 Jul	1840 cancer patients	Structured data collection sheets from the (WHO) Cancer and Palliative Care Unit.	The predominance of moderate to serious agony was 51%, going from 43% in stomach disease to 80% in gynecological malignant growths. Sickness was generally common in gynecological (42%) and stomach (36%) diseases, and dyspnea (46%) in cellular breakdown in the lungs. There were statistically significant differences in the prevalence of most symptoms depending on the primary site of cancer and the hospice.

In the second review study, Quasi experimental with pre-test post-test control bunch configuration was utilized. A sum of 40 GI malignant growth patients were enlisted with 20 patients each in trial and examination bunches by lottery technique. Tools used Universal Pain Assessment Tool to assess Pain; Insomnia Severity Index Scale to assess Insomnia; Common Toxicity Criteria for Adverse Events Version-5 to assess Fatigue, Nausea/Vomiting and Anorexia; and Karnofsky Performance Status Scale to assess Performance status. This showed that mean pre-test insomnia score was 11 which was significantly reduced to 5.17 after the PMRT in the exploratory gathering with. Likewise, there was a huge contrast between mean pre-test and post-test grades of weariness in the trial bunch at 0.01 level. The discoveries showed that ever-evolving muscle unwinding preparing would further develop rest quality and exhaustion in patients with bosom malignant growth going through adjuvant chemotherapy. We also looked at quasi experimental study, where pre test post test design was used among 30 purposively selected cancer patients receiving initial course of chemotherapy. Structured interview schedule was used. Data were analyzed and revealed that the overall post intervention physical health & psychological health status mean score which is lower than the pre test score. These findings highlights that the PMR therapy had significant effect in minimizing physical and psychological health problems of cancer patients. In paper, Convenience sampling technique was adopted on caregivers of mentally ill patients. Data collection was done through Stress assessment scale and Beck Anxiety Inventory AND found that significant difference in level of Stress and Tension among sixty parental figures of deranged patients subsequent to delivering the unwinding treatment and it was gathered that unwinding treatment is successful in diminishing the degree of Stress and Nervousness among guardians of insane patients. The other piece, prospective, repeated measures, quasi-experimental design with control group. The study sampling consisted of 27 individuals who met the criteria for inclusion in the study. Progressive muscle relaxation training was given to the progressive muscle relaxation group, but not to the control group. The effect of the progressive muscle relaxation training was

measured at different stages of the treatment. A data collection form, Pittsburgh Sleep Quality Index and Piper Fatigue Scale were used to collect the data for this study.

Author / Year	Sample Size / Setting/ Research Design	Assessment Tools	Data collection and Result
Bhatia.M., (2020)	Quasi experimental with pre-test post-test control group design was used. 40 GI cancer patients were enrolled with 20 patients each in experimental and comparison groups by lottery method.	Universal Pain Assessment Tool to assess Pain; Insomnia Severity Index Scale to assess Insomnia; Common Toxicity Criteria for Adverse Events Version-5 to assess Fatigue, Nausea/Vomiting and Anorexia; and Karnofsky Execution Status Scale to evaluate Execution status	This showed that insomnia score was 11 which was significantly reduced to 5.17 after the PMRT in the experimental group as well as for fatigue. Hence, PMRT is compelling in diminishing the actual side effects of sleep deprivation and weariness in malignant growth patients getting chemotherapy.
Annalakshmi, J.,(2007)	Quasiexperimental study, where pre test post test configuration was utilized among 30 purposively admitted at Pravara Rural Hospital.	Structured interview schedule The data were analyzed with descriptive and inferential statistics	The results revealed that the overall post intervention physical health status and post test psychological health status lower than the pre test score. These findings highlights that the PMR therapy had significant effect in minimizing physical and psychological health problems of cancer patients.
Latha, I (2019)	“Pre Experimental Design with 60 cancer patients using purposive sampling technique.	Modified Lazarus and Folkman coping inventories through interview method.	Progressive muscle relaxation techniques were given to the patients dividing them into 2 groups containing 15 members for 15-20 minutes/15 days. administration of

			Progressive muscle relaxation techniques was effective on improving coping and reducing stress and coping among cancer patients
Demiralp M, (2010)	Prospective, Forthcoming, rehashed measures, semi test plan with control group.	27 individuals (14 individuals formed the progressive muscle relaxation group, 13 control group) Pittsburgh SleepQuality Indexand Piper FatigueScale were used	PMR group encountered a more prominent expansion in better rest quality and a more noteworthy decline in weakness than the control group.

In another article, According to the third piece, Five electronic databases during September 2018 was searched. Handbook Rendition 5.1.0 and Revman variant 5.3 programming was utilized and 1,548 patients were incorporated, of which control (765) and test bunch (783). Results shows standard consideration, music treatment can essentially increment in general personal satisfaction in patients with malignant growth and was powerful for diminishing the score of nervousness, misery and torment. In another exploratory with fourty example where Pre-post-test configuration were utilized. Individual data structure, Spielberger state-attribute tension stock, VAS and Morrow evaluation of queasiness and regurgitating. Test both the control and the case bunch shows decline in ' state and attribute tension levels. Music treatment and visual symbolism diminished the seriousness and length of chemotherapy-actuated queasiness and heaving , uneasiness and showed improvement in rest . In the study eighty Patients, Hospice Quality of Life Index-Revised,palliative performance scale tool was used where Experimental group comprises of routine hospice administrations and clinical music treatment and control bunch incorporates routine hospice benefits as it were. Bunches were matched based on orientation and age. Personal satisfaction was higher for those subjects getting music treatment and it got expanded over the long run. Subjects in the benchmark group, in any case, encountered a lower personal satisfaction than those in the trial bunch. Imminent Assessment of 166 music treatment meetings were performed with 41 patients for 41 minutes. Different music treatment techniques were proposed to the patient toward the start of each and every meeting. Patients appraised their abstract advantage. Most preferred techniques were remedial discussion in 84% of meetings; paying attention to loosening up music, 39%; playing an instrument, 31%; and music-lead creative mind, 11%. Open music treatment was applied in 45%, dynamic structures in 25%, a mix of both in 7%, Music treatment was evaluated to be "useful" in 68%.

In fourth article, a Cross-sectional Study with ninety-nine cancer patients at Malaysian Hospital, Malaysia. A face-to-face interview with structured questionnaire were performed. The study revealed that nausea, vomiting, loss of appetite, weakness and hair loss were most worried symptoms were reported by the cancer patients. A qualitative randomized controlled trial study with Individual interviews were performed and its shows and that patients had many side effects during completion of chemotherapy treatment and for the most part members embraced conduct, social, mental and profound systems to adapt to the chemotherapy effectively. A retrospective audit of medical records from 2004-08 was done in which demographic details, toxicity, and outcome analysis were carried out. 133 patients suffering with breast cancer and received TAC chemotherapy regimen. Data relieved that 31% had coexisting diabetes and 12% hypertension. The delivered dose intensity was 94%. Discontinuation of chemotherapy rate was 15.8%, the most common reason was hematological toxicity. There were 32% cases of febrile 16 neutropenia and 1.5% Grade III thrombocytopenia, with 2% toxic deaths. Diarrhea occurred in 26% and cardiac toxicity in 1.5% patients. A study was with two hundred cancer patients undergoing chemotherapy in Greece. Memorial Symptom Assessment Scale and Questionnaire were used and results revealed that numbness or tingling sensation in hand or foot and fatigue were the most common physical symptoms. Nervousness and sleeping disturbances were the common psychological symptoms.

SOLUTION FOUND:

In the first review article, there were statistically significant differences in the prevalence of most symptoms depending on the primary site of cancer and the hospice. Results also reveals that proper attention to symptom burden and suffering should be the basis for individually tailored treatment aimed at improving or maintaining quality of life of patients in their last period of life. Prevalence estimates with a response rate of 69%, 3.3% of responders revealed a protuberance in their breast, 5.7% detailed blood in solid discharges, 2.2% blood in urine, and 6.5% hacking over 6 weeks inside beyond a year. By and large, 15.3% of the females and 12.7% of the guys announced having encountered no less than one disease caution side effect inside the beyond a year. Research shows that symptoms and their relationship with the quality of life of cancer patients. Weariness (76.6%), a sleeping disorder (47.7%), torment (42.1%), loss of hunger (37.4%), tension (31.8%) and gloom (21.5%) were recognized. Uneasiness and sorrow side effects gave a negative relationship personal satisfaction and positive connection with actual side effects.

According to a second critique, this showed that mean pre-test insomnia score was 11, which was significantly reduced to 5.17 after the PMRT in the experimental group thus PMRT is effective in decreasing the physical symptoms of insomnia, stress, anxiety and fatigue in patients receiving chemotherapy and psychological health problems. Study proposed to begin unwinding preparing not long before chemotherapy to diminish the recurrence and seriousness of rest issues and side effects like weakness during chemotherapy

In third study, results uncovered that Music treatment can work on the general personal satisfaction of patients with malignant growth, with noticed ideal mediation. It was resolved that

correlative methodologies containing music treatment and visual symbolism emphatically affected chemotherapy-prompted nervousness, queasiness, torment and heaving and showed improvement in rest. Music treatment procedures, particularly responsive strategies, are possible and all around acknowledged in critical condition disease patients.

In article, high prevalence of chemotherapy-related side effects, perceptions and informational needs among patients, may help in side effect management. Breast carcinoma clients undergoing chemotherapy revealed that some of the patients had many side effects during completion of chemotherapy treatment, while some faced greater adverse effects physically and mentally. Docetaxel, Doxorubicin, Cyclophosphamide is an effective regimen & considered “practically feasible” regimen in the adjuvant setting in carefully selected, fit patients. The results demonstrate that patients undergoing chemotherapy experience various symptoms in high prevalence. Therefore nurses should find and plan suitable care plans and interventions in order to alleviate them and improve patients' quality of life

CONCLUSION DRAWN:

It was shown that significant differences in the prevalence of most symptoms depending on the primary site of cancer and the hospice. Proper attention to symptom burden and suffering should be the basis for individually tailored treatment aimed at improving or maintaining quality of life of patients in their last period of life. Alert side effects of bosom, colorectal, urinary lot, and cellular breakdown in the lungs are normal in everybody .Weariness, a sleeping disorder, torment and loss of craving were the most well-known and most extraordinary side effects. Nervousness and discouragement side effects have positive relationship with actual side effects.

In second review articles explained PMRT is effective in decreasing the physical symptoms of insomnia and fatigue and psychological health status in cancer patients receiving chemotherapy. It should be more emphasized that training, awareness and practice of PMR therapy just before chemotherapy improves reduction in the severity of side effects, and improvement of quality of life. Delivering unwinding treatment to the guardians of deranged patients was compelling in lessening Pressure and tension.

Third review article offered Music treatment can work on the general personal satisfaction, nervousness, misery and agony of patients with malignant growth, with noticed ideal mediation. It was resolved that corresponding methodologies containing music treatment and visual symbolism emphatically affected Chemotherapy-prompted tension, queasiness and regurgitating and showed improvement in rest .Music treatment procedures, particularly responsive techniques, are possible and all around acknowledged in critical condition malignant growth patients The fourth article concluded that, patients had many side effects during completion of chemotherapy treatment, while some faced greater adverse effects physically and mentally. Numbness or tingling sensation and fatigue for physical symptoms and nervousness and sleeping disturbances were the

common psychological symptoms. Docetaxel, Doxorubicin, Cyclophosphamide TAC was considered “practically feasible” regimen in the adjuvant setting in carefully selected, fit patients.

SCOPE FOR FURTHER WORK:

- In future, one can see populace based follow-up examinations are expected to record the frequency and pervasiveness of side effects over the span of the illness.
- Excellent preliminaries are as yet expected to additionally decide the impacts of music mediation in strong malignant growth care.
- A similar study can be done with other common side effects of chemotherapy among breast cancer patients.
- The study can be replicated in other clinical and community settings.
- Other standardized research tools can be used to assess the effectiveness of progressive muscle relaxation technique versus music therapy among breast cancer patients who are receiving chemotherapy.
- A similar study can be conducted with other alternative and complimentary therapies to assess the reduction of side effects of chemotherapy among cancer patients
- Study can be done keeping single type of cancer and in longitudinal design.

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