World Journal of Pharmaceutical and Life Sciences
WJPLS
www.wjpls.org
SJIF Impact Factor: 6.129

A REVIEW ON ASSESSMENT OF QUALITY OF LIFE AND SPECTRUM OF MENTAL DISORDERS IN CANCER PATIENTS

S. K. Jareena*, S. K. Hafeezunnisa, Sreenu Thalla and Padmalatha Kantamneni

Department of Pharmacy Practice, Vijaya Institue of Pharmaceutical Sciences for Women, Enkiepadu, Vijayawada, Andhra Pradesh, India, 521108.

***Corresponding Author: S. K. Jareena**
Department of Pharmacy Practice, Vijaya Institue of Pharmaceutical Sciences for Women, Enkiepadu, Vijayawada, Andhra Pradesh, India, 521108.

Article Received on 20/01/2020 **Article Revised on 10/02/2020** **Article Accepted on 01/03/2020**

ABSTRACT

In cancer patients, there is psychological distress most of the time underdiagnosed. Infertility rates are as high as 90% in men during there reproductive years. Common psychological and emotional responses to cancer develop with its diagnosis, its prognostic uncertainty and fears about death and dying. Indian patients put karma/fate and sheer helplessness on its first diagnosis and its major sources of continuing emotional distress are fear of incurability, disfigurement, recurrence of disease and sense of helplessness over its treatment, pain. Non-utilization of the community-based cervical cancer screening program was due to the absence of symptoms, apprehensions about the screening test, pre-occupation with family problems, practical difficulties and lack of approval from the spouse. Depression and anxiety were common in people who do not have kids. Maybe kids not having itself is a factor for depression or anxiety but having kids also give a sense of social support to the patient and unmarried are with high anxiety levels.

KEYWORDS: Psychological distress, emotional responses, depression, anxiety.

INTRODUCTION

Cancer is the second most common cause of death worldwide.[1] An increase in life expectancy, changes in age structure coupled with lifestyle factors in recent years increased its life expectancy.[2] Psychological distress most of the time have not received proper attention in the cancer patients and is underdiagnosed.[3]

This may influence their quality of life and survival time. In a report Improving palliative care in cancer patients, by National Cancer Policy Board, U.S, it was emphasized that palliative care for these cancer patients should begin at the time of diagnosis with equal importance to psychological, physical, social and spiritual care.[4]

Quality of life (QOL) including emotional and spiritual well-being, social relationships and functional ability are negatively influenced because of uncontrolled symptoms. A critical component in improving QOL is aggressive management of physical symptoms.[5]

Epidemiology

The incidence of cancer is increasing rapidly. In 2012, an estimated 14.1 million new cases of cancer occurred worldwide and there was a 2-3 fold increase in countries with a low and medium level of Human Development Index. The occurrence of cancer varies according to gender. World literature reports of 205 new cancer cases for every 1,00,000 men and 165 for every 1,00,000 females whereas a report from India mentions 5,89,800 and 6,03,500 new cancer cases among males and females respectively.

The incidence of cancer cases in India is expected to increase from 0.589-0.934 million among males and 0.603-0.935 million among females by the year 2026. Nearly 40%-80% of females are prone to infertility as a result of their cancer treatment in the form of chemotherapy, radiation, and surgery. Infertility rates are as high as 90% among men and men with cancer during their reproductive years.[6]

METHODOLOGY

In study 1 - group pre-test-post test-pre experimental design was employed. It was approved by the Institutional Ethics Committee. Thirty cancer patients (19 men, 11 women) under 3 cancer types- head and neck, breast and lung cancers (10 in each type) were selected through purposive sampling from different cancer hospitals. Stress in Cancer Patients- Revised Version (QSC-R23) was used to measure stress and European Organisation for the Cancer QOL Questionnaire, Version 3.0 was used to measure health-

related QOL. The inclusion criteria for this study were newly diagnosed men and women of head and neck, breast and lung cancers, with no psychiatric illness and within the age group of 25-65 years without any restrictions to their occupation, socioeconomic status, and place of living. Exclusion criteria were below 25 or above 65 years and either psychiatric or physical comorbidity was not considered. The duration of the study was 6 weeks.[7]

In study 2 a survey is done by using electronic databases like IndMed, PubMed, Medknow, EBSCO host on published psycho-oncology research literature from India in addition to the tissues of the Indian Psychological Abstracts and Review between the years 1996-2000 were scanned. The study is mainly focused on keywords like cancer, psychological, psychiatric, psycho-oncology, distress, quality of life, survivors, palliative and India, in various permutations and combinations. Inclusion criteria are empirical investigations discussing papers and exclusion criteria are papers on the Indian subcontinent that were theoretical in nature or contained overviews and clinical guidelines or general observation.[8]

Study 3 was a cross-sectional study conducted in Kasturba, medical college hospital, Mangalore, Karnataka by taking 100 cancer patients. Inclusion criteria are patients above 18 years of age with cancer and its exclusion criteria are pre-existing psychological problems, advanced metastatic cancer, poor performance score, not willing to sign consent form.[9]

RESULTS

Table 1: Mean, standard deviation, and t values for stress scores of cancer patients in pre- and post-medical and psychological assessment.

Variables	Pre-MPIA		Post-MPIA		t	Cohen's d
	Mean	SD	Mean	SD		
Stress	69.43	14.91	16.80	6.69	22.85**	4.55
Psychosomatic complaints	20.40	5.43	6.10	3.81	15.84**	3.04
Fears	12.90	1.88	4.17	1.88	17.29**	4.64
Information deficits	8.13	5.26	0.07	0.25	8.50**	2.16
Everydaylife restrictions	14.77	4.30	4.17	2.15	15.60**	3.18
Social strains	11.60	4.70	2.30	1.66	11.29**	2.63

Paired t-test showed a statistically significant difference between pre and post MPIA (medical and psychological intervention assessment) stress scale in cancer patients. There is decreased stress in post-MPIA in comparison to pre-MPIA. The statistically significant difference was also noted in stress, psychosomatic complaints, effect size, everyday life restrictions, social strain and between pre and post MPIA.

Table 2: Mean, standard deviation, and t values for global health status and quality of life of cancer patients in pre- and post-medical and psychological assessment.

Variables	Pre-MPIA		Post-MPIA		t	Cohen's d
	Mean	SD	Mean	SD		
GHS/QoL	19.58	11.50	52.27	18.00	15.87**	2.16
Functional scales						
Physical functioning	32.40	31.58	70.63	23.91	9.63**	1.36
Role functioning	11.60	25.11	25.60	28.26	4.85**	0.52
Emotional functioning	31.17	26.47	87.27	10.91	13.97**	2.77
Cognitive functioning	86.33	30.20	96.68	9.14	1.87	0.46
Social functioning	21.13	34.76	24.47	36.57	1.45	0.09
Symptoms scales						
Fatigue	84	18.92	36.53	14.24	16.58**	2.83
Nausea and vomiting	5.60	13.41	1.70	5.18	1.49	0.38
Pain	74.50	28.58	29.47	20.77	8.79**	1.80
Insomnia	83.33	31.29	18.73	18.84	11.24**	2.50
Appetite loss	83.33	31.29	9.93	17.76	11.01**	2.88
Constipation	5.53	15.35	30.90	17.40	5.10**	1.54
Diarrhea	10.00	27.90	0	0	1.96*	0.50

GHS/QOL in cancer patients is better in post-MPIA when compared to post-MPIA. The effect of MPI was high and improved QOL was observed according to the results. There is a statistically significant difference in three functioning scales of QOL, physical functioning, emotional functioning, the role of functioning which indicates improvement during post-MPIA.

In symptoms domain, there is a significant difference in fatigue, pain, dyspnea, insomnia, appetite loss, constipation, and diarrhea and it is increased during post-MPIA and the effect of MPI is significantly low on these scales.

Table 3: Association between the stage of cancer and scales.

Stage of the cancer	PHQ15 (anxiety)		GAD7 (somatization)		PHQ9 (depression)	
	Normal (*n*=51)	Positive (*n*=49)	Normal (*n*=64)	Positive (*n*=36)	Normal (*n*=29)	Positive (*n*=71)
I (%)	7 (87.5)	1 (12.5)	7(87.5)	1 (12.5)	5 (62.5	3 (37.5)
II(%)	11 (37.9)	18 (62.1)	17 (58.6)	12 (41.4)	9 (31)	20 (69)
III(%)	20 (69)	9 (31)	19 (65.5)	10 (34.5)	8 (27.6)	21 (72.4)
IV(%)	13 (38.2)	21 (61.8)	21 (61.8)	13 (38.2)	7 (20.6)	27 (79.4)
p	0.007		0.497		0.132	

Maximum patients showing anxiety for PHQ – 15 was found in stage II cancer. Among them 1, 9, 21 were positive who showed anxiety in Stage I, III, IV respectively and their statistically significant result was 0.007. For GAD – 7, maximum patients with somatic disorder were found in Stage II cancer. In this 1, 10, 13 were positive who showed anxiety in Stage I, III, IV respectively and their P-value is not a statistically significant value which was found to be 0.497. For PHQ – 9, maximum patients showing depression was in Stage IV cancer. In this 3, 20, 21 were positive who showed anxiety in Stage I, II, III respectively and their P-value is not a statistically significant value which was found to be 0.132.

Table 4: Association of marital status with the scales (values are frequency and percentage).

Scales	Married with kids (*n*=87)	Married without kids (*n*=9)	Unmarried (*n*=4)	p
PHQ9 (depression)				
normal	28 (32.2)	1 (11.1)	0	0.177
positive	59 (67.8)	8 (88.9)	4 (100)	
GAD7 (somatization				
normal	55 (63.2)	5 (55.6)	4 (100)	0.279
positive	32 (36.8)	4 (44.4)	0	
PHQ15 (anxiety)				
normal	45 (51.7)	3 (33.3	3 (75)	0.356
positive	42 (48.3)	6 (66.7)	1 (25)	

In this study 54 were males and 46 were females. From the total study population, 96 were married with kids suffered from anxiety problem after having cancer while remaining were normal. 8 were married and without kids with cancer while rest were normal. 1 out of 4 unmarrieds are with anxiety according to PHQ – 15 scale which is not statistically significant and its P-value was found to be 0.356.

Psychological and emotional reactions

Phenomenology and understanding of psychiatric disorders and their management are discussed with the help of psychiatric oncology. In mainly focus on the importance of consultation-liaison psychiatry, with a focus on the research and practice in the Indian setting which includes studies on cancer pain and palliative care, screening for psychiatric morbidity, quality of life, communication skills for health professionals in breaking bad news and handling difficult questions and counseling.

The common psychological and emotional responses to cancer develop with its diagnosis, its prognostic uncertainty and fears about death and dying. Physical symptoms like pain, nausea, lymphoedema, other distressing symptoms of the disease and unwanted effects of medical, surgical and radiation treatment are also responsible for the emotional responses.[10]

Awareness of diagnosis, prognosis, and distress

In one study preferences of patients suffering cancer and relatives regarding communication of diagnosis were examined. A survey was done regarding life-threatening illness by using two hypothetical questions indicated that 85% of clinical students and89% of doctors stated that diagnosis should be revealed. In another study, 62% of patients were aware of their disease who were attending radiotherapy but 46% received a diagnosis from their doctors. An empirical examination of the practices related to diagnostic and prognostic disclosures across oncology settings as well as factors associated with such

practices from multiple perspectives should be taken into account.[8]

Hospital Anxiety and Depression Scale (HADs scale) though it is simple and convenient it has problems with the Asian population with its factor structures. The coping and concerns checklist developed in Cancer Research Campaigns Cancer Research Center and adapted for use in India helps in identifying common physical and psychological problems in cancer patients.

Indian patients put karma/fate and sheer helplessness on its first diagnosis and its major sources of continuing emotional distress are fear of incurability, disfigurement, recurrence of disease and sense of helplessness over its treatment, pain.

In study3 it was noted that 54% were aware of the diagnosis and they are less likely to have psychiatric problems compared to 46% were unaware of cancer instead of regularly attending the cancer hospital for treatment and awareness of the hospital's name and refused for psychological distress treatment.[10]

Quality of life

There is an increase in QOL at three months following radiotherapy but showed declining QOL following 3-4 weeks of radiotherapy in one study. There is a need to focus on the role of biological, psychological and social factors that impact the well being of cancer patients.[8]

Common scales used in India are the HADs, EORTC, Rotterdams symptoms Check List, WHOQOL-100, Brief Functional Assessment For Cancer and Therapy (FACT, FACIT), EuroQOL, EQ-5D. Peace of mind, spiritual satisfaction and social satisfaction were considered to be very important in two-third of the patients rather than individual functioning and level of physical and psychological health were given less significant.it was noted that number of concerns is the clear indication for poorer QOL.[10]

DISCUSSION AND CONCLUSION

Non-utilization of the community-based cervical cancer screening program was due to the absence of symptoms, apprehensions about the screening test, pre-occupation with family problems, practical difficulties and lack of approval from the spouse. Forgetfulness and being too busy are the two common barriers in a community-based intervention study on breast self-examination.

Psycho-social factors are to be taken into account while designing and implementing programs regarding cancer prevention and early detection. For diagnosable psychiatric conditions, the reported prevalence was between 40%-80%. In a few published studies, depressive disorders have been commonly reported. The referral rates for psychological services for cancer patients are low which is presented in one study.[8]

It was found that patients suffered not only with depression but also with other psychiatric morbidities like anxiety and somatic problems but the maximum is with depression. It was found that anxiety, somatic problems, and depression were more in females than males when the comparison was drawn between the gender of the patient and psychiatric morbidities according to national statistics.

Depression and anxiety were common in people who do not have kids. Maybe kids not having itself is a factor for depression or anxiety but having kids also give a sense of social support to the patient and unmarried are with high anxiety levels. It was found that the highest anxiety and somatization were found in Stage II cancer and depression was maximum in Stage IV cancer patients. Limited was found in Stage I because of early diagnosis and hope to cure quickly.[9]

ACKNOWLEDGMENT

We acknowledge the Vijaya Institute Of Pharmaceutical Sciences For Women for support and valuable guidance.

CONFLICT OF INTEREST

We declare that we have no conflict of interest.

REFERENCES

1. The International Agency For research and cancer, GLOBOCAN 2008, an online resource for cancer statistics. Available at: http://www.uicc.org /generalnews/globocan-2008. Accessed on 22nd December, 2013.
2. Murthy NS, Chaudhry K, Rath GK. Burden of cancer and projection for 2016, Indian scenario: gaps in the availability of radiotherapy treatment facilities. Asian Pac J Cancer Prev., 2009; 9: 671-7.
3. Kandaswamy A, Chaturvedi SK, Desai G. Spirituality, distress, depression, anxiety and quality of life in patients with advanced cancer. Indian Journal of Cancer., 2011; 48(1): 55-9.
4. Vidya D. C, Sundarnag Ganjekar, Shalini C. N, Harish K, Murthy N. S. Spirituality and its association with psychological distress in cancer patients attending a tertiary care hospital in Bangalore, India, International Journal of Community Medicine and Public Health, 2016 Jul; 3(7): 1812-1815.
5. Datta A, Aditya C, Chakraborty A, Das P and Mukhopadhyay A. A Qualitative Evaluation of the Impact of Palliative Care among Women Cancer Patients in Eastern India, Journal of Palliative Care & Medicine, 2016; 6: 3,1000259.
6. Shayanth Manche Gowda, Harish Thippeswamy, Santosh K. Chaturvedi. Psychosocial needs of cancer survivors in fertility preservation: A systematic review, The Onco Fertility Journal, 2018; 1(1): 24-29.
7. Prasad Vijay Barre, Gadiraju Padmaja, Suvashisa Rana, Tiamongla. Stress and Quality of Life in

Cancer Patients: Medical and Psychological Intervention, Indian Journal of Psychological Medicine, 2018 May-Jun; 40(3): 232–238.
8. Seema Mehrotra. Psycho-Oncology Research in India: Current Status and Future Directions, Journal of the Indian Academy of Applied Psychology, January 2008; 34(1): 7-18.
9. Prakash Saxena PU, Kulkarni V, Thapar R, Pai K, Gupta A, Kotian H. Assessment of the spectrum of mental disorders in cancer patients, Journal of cancer research and therapeutics, 2018 Oct-Dec; 14(6): 1312-1315.
10. Santosh K. Chaturvedi. Psychiatric oncology: Cancer in mind, Indian Journal of Psychiatry, 2012 Apr-Jun; 54(2): 111–118.