An Empirical Analysis on Post Traumatic Stress Disorder (PTSD) among Recently Diagnosed Cancer Patients: A Study in Visakhapatnam

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ABSTRACT

Nowadays cancer is the most threatening illness to human wellbeing. Cancer is a complex illness which is highly stressful and can be traumatic. Emotional responses to this experience can range from acute fear, sadness, and anger to enduring adjustment difficulties, anxiety, and depression. The main objective of this paper is to evaluate the prevalence, predictors, and correlates of cancer-related PTSD symptoms and diagnoses. The research approach of the study is an integrated research approach. The study adopted a descriptive research design and applied a convenience sampling method. The study selected 50 respondents who diagnosed cancer recently and collected the data through a pre-tested, unstructured interview schedule. The study found that majority of the respondents (n=16) are affected by breast cancer, chemotherapy and radiotherapy (n=19) are the most common and preferred methods of treatment and the respondents had relative knowledge about PTSD. Highest scoring items were "I am having strong physical reactions when something reminds me of the stressful experience" (M=3.92, SD=0.24) and "Feeling distant from people" (M=3.92, SD=0.24). The lowest scoring item was "I suddenly feel or act as if the stressful experience was happening again" (M=3.42, SD=0.22). The study found that after being diagnosed with skin cancer, most participants had changed their ways, especially around unprotected sun exposure. The study suggested that the new interventions should be designed prevent cancer and provide the care, support and treatment to cancer patients.

INTRODUCTION

Cancer is one of the most prevalent reasons for human death in these times. Recent cancer studies and research have been extensive to determine the early prognosis and detection in a major task for identification and to reduce the death rate on cancer. Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body (Cancer Institute, 2018). These contrast with benign tumours, which do not spread. Possible signs and symptoms include a lump, abnormal bleeding, prolonged cough, unexplained weight loss, and a change in bowel movements. While these symptoms may indicate cancer, they can also have other causes. Over 100 types of cancers affect humans (Cohen S, Murphy ML, Prather AA, 2019).

Post-Traumatic Stress Disorder (PTSD)

Post-traumatic stress disorder (PTSD) is a severe psychiatric disorder, which might develop after a traumatic event, like cancer diagnosis. It threatens the patient's psychological and/or physiological integrity (Matthias Unseld et al., 2019). It is a syndrome that results from exposure to real or threatened death, serious injury, or sexual assault (Lok A, Frijling JL, van Zuiden M,

2018). Following the traumatic event, PTSD is common and is one of the serious health concerns that are associated with comorbidity, functional impairment, and increased mortality with suicidal ideations and attempts. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) has included PTSD in the new category of Trauma- and Stress-related Disorders (Blevins, 2015).

Symptoms of Post-Traumatic Stress Disorder (PTSD)

The are several signs and symptoms of PTSD which includes, Intrusion, this is as to say intrusive thoughts such as repeated, involuntary memories; distressing dreams; or flashbacks of the traumatic event. In addition to this is, Avoidance, which provides that avoiding reminders of the traumatic event may include people, places, activities, objects, and situations that may trigger distressing memories. Furthermore, Alterations in cognition and mood proves the inability to remember important aspects of the traumatic event, negative thoughts and feelings leading to ongoing and distorted beliefs about one or others. Also, the Alterations in arousal and reactivity, this is to say that arousal and reactive symptoms may include being irritable and having angry outbursts.

REVIEW OF LITERATURE

Matthias Unseld et al. (2019) conducted a study with 1017 cancer patients in Vienna. The study found that 31.7% of the patients suffer with PTSD. And compared with men, women showed a higher prevalence of symptoms for PTSD (38.9% vs 24.5%; P< .001). No differences in age were observed among the different score groups. The study found that there is a significant prevalence as well as a correlation between PTSD symptoms with anxiety, depression, and distress among cancer patients. The study observed that one third of all cancer patients screened in this study suffered from a serious psychological burden. Frequently, treatment efforts are focused on physical symptoms, while comorbid psychiatric conditions are often overlooked and therefore untreated in many of the cases.

The World Health Organization (2017) reports that between two and three million non-melanoma skin cancers and approximately 132 000 malignant melanomas occur globally every year. Melanoma begins in melanocytes (pigment cells). Most melanocytes are in the skin. Melanoma can occur on any skin surface. In men, it's often found on the skin on the head, on the neck, or between the shoulders and the hips. In women, it's often found on the skin on the lower legs or between the shoulders and the hips. This conducts that cancer is medically referred to as malignant neoplasm; a class of diseases in which a group of cells display the traits of uncontrolled growth (growth and division beyond the normal limits), invasion (intrusion on and destruction of adjacent tissues), and sometimes metastasis (spread to other locations in the body via lymph or blood).

Chemotherapy, in its most general sense, according to Wikipedia sv, "chemotherapy" refers, to treatment of disease by chemicals that kill cells, specifically those of microorganisms or cancer. **The Cancer Treatment Centres of America** (2008) refer to chemotherapy as the treatment of cancer with drugs that can destroy cancer cells by impeding their growth and reproduction. Chemotherapy is often used alone, or in conjunction with radiation therapy or surgery. For the purposes of this study, chemotherapy is understood to be a form of treatment for cancer where drugs or medicine is used to eliminate cancer cell development.

In a study by **Harper (2014) and Morra and Potts (2005),** it suggested that early diagnosis is lifesaving in prevention of skin cancer. Other methods mentioned in the study are avoiding outdoor activities during the middle of the day, wearing long sleeves

and long pants much as considering tightly woven fabrics is best. Wearing a hat with a wide brim all around, that shades the face, neck, and ears or wearing sunglasses that absorb UV radiation to protect the skin around the eyes as well as using sunscreen lotions with a sun protection factor. Some lotions may be recommended by professionals on the amount covering the skin before going outside, during outdoor activities like swimming or when sweating. These may help to prevent some skin cancers.

The results of the literature review showed that there is little information regarding research on PTSD and recently diagnosed cancer patients despite the various data on types of cancers and treatment options. Information in how newly diagnosed cancer patients are affected by and eventually deal with PTSD is scarce, and as far as the researcher is informed there are no studies that explores the topic extensively.

Objectives of the study
1. To study the socio-economic and demographic profile of recently diagnosed cancer patients
2. To determine the post-traumatic stress disorders among recently diagnosed cancer patients
3. To provide appropriate suggestions to promote the quality of life of cancer patients

Research questions
1. What are the psychological conditions of patients when they know about their cancer status?
2. What were the most challenging experiences of cancer patients and who supported them during the treatment process?
3. What is the influence of cancer on lifestyle, hobbies, activities, work, relationships, and self- image of an individual?

METHODOLOGY

The research study was conducted in Visakhapatnam, Andhra Pradesh. Visakhapatnam is one of the main cities of Andhra Pradesh and it is a health hub for the north Andhra population as well as Odisha people. There are three familiar hospitals available for Cancer treatment i.e. Homi Baba Cancer Hospital, KGH Hospital and Mahatma Gandhi Cancer Hospital. The present study selected the respondents from Mahatma Gandhi Cancer Hospital, Visakhapatnam. All the respondents are skin cancer patients and are more than 18 years of age. The researcher attempted to understand the subjective life experience of the respondents who suffer from cancer and have been diagnosed and are undergoing treatment, in order to add onto the development of insight and a better understanding of the experiences of newly diagnosed cancer patients in the current Indian context. The research approach of the study is an integrated research approach; both qualitative and quantitative data were collected. The study adopted a descriptive research design and applied a convenience sampling method. The study selected 50 respondents and collected the data through a pre-tested, unstructured interview schedule. The researcher obtained informed consent from participants to do these recording of interviews before the interviews were conducted. The data was collected in the month of March 2023. The data were analysed through Ms-Excel 2010 version. The results were presented in tabulation form and applied statistical analysis.

Reliability analysis
Cronbach's Alpha was used to determine the reliability of the instrument. Nunnally (1978) stated that a Cronbach's Alpha score of .70 or higher indicates a proof of internal consistency. For this study, reliability analysis was conducted on the 6 – scale rated Likert scale items and it was found to be 0.761 or 76.1% and this was deemed to be largely consistent with the findings of Nunnally (1978).

RESULTS AND DISCUSSIONS

This section gives a narrative about the findings of the study. It consists of an overview of the study as well as the themes and objectives that emerged throughout the study.

Socio-demographic characteristics of respondents (N=50)

Researchers have posited that socio-demographic characteristics may impact adherence by influencing an individual's ability to acquire knowledge, communicate effectively with their health care providers, and to obtain effective social support around their diagnosis (Apter et al., 2013). In this study, there were at least 12 demographic characteristics that were examined in the study from the respondents. The findings will be presented in a table for convenience purposes.

Table 1 has all the details. (Source: Researcher findings)
Table 1: **Demographic characteristics of respondents (N=50)**

Demographic characteristics	Parameters	Frequency	%
Age	Average	66	
Gender	Male	31	62.0
	Female	19	38.0
Level of education	Illiterate	35	70.0
	Below 10th class	8	16.0
	Below graduation	7	14.0
Caste	OC	11	22.0
	BC	16	32.0
	SC	10	20.0
	ST	13	26.0
Religion	Hindu	30	60.0
	Christian	20	40.0
Marital status	Single	27	54.0
	Married	19	38.0
	Divorced	4	8.0
Place of residence	Rural	35	70.0
	Urban	8	16.0
	Tribal	7	14.0
Socio - economic status	Low income	18	36.0
	Middle income	28	56.0
	High income	4	8.0
Cancer diagnosis before?	Yes	3	6.0
	No	47	94.0
Cancer type	Breast	16	32.0
	Cervical	5	10.0
	Endometric	6	12.0
	Leukemia	4	8.0
	Lung	11	22.0
	Ovarian	8	16.0
Cannabis/drug usage history	Yes	11	22.0
	No	39	78.0
Type of cancer treatment	Chemotheraphy	19	38.0
	Radiography	19	38.0
	Surgery	11	22.0
	Combined therapy	1	2.0

The average age of the entire respondents was calculated and averaged to be 66 years. This is normally a post - retirement age, and an age domain where many of the Indian population are plagued by infections like cancer and PTSD, among others as per findings by Macrotrends (2020). While the life expectancy for India stands at 70.15 years, the data in the above table revealed that majority (62%) of the respondents are male and the remaining 38 per cent are female. The results also revealed that majority of the respondents (n=35) are illiterate and only 7 are below graduation and this can be largely true because the respondents are a pool of old people whom during their prime years in India, education was not fully standardized.

India's caste system is among the world's oldest forms of surviving social stratification. The system essentially divides Hindus into rigid hierarchical based on karma and dharma, which is simply working class. Most of the respondents fell under the Backward Caste (BC) (n=16) category and the least respondents fell under the Open Category (OC) (n=11). Otherwise, most Indians fall under the OC because of the developing economy of the country (Osman, 2010). According to the results, the bulk of the respondents are single. (n=27), and only 4 are divorced while 19 are married. It is no secret that Hindu religion fully supports that followers of the religion must get married (Mohadman, 2014) as it makes them relevant before the eyes of God. Lastly, the results also reveal that most of the respondents come from middle income families (n=28) and only fewer (n=4) are from high income setups. This conforms to the fact that India is a high populated country with a developing estate economy.

The findings revealed that majority of the respondents (n=16) are affected by breast cancer and the least of this category are affected by Leukemia (n=4). As per the Globocan data 2020, in India, BC accounted for 13.5% (178361) of all cancer cases and 10.6% (90408) of all deaths with a cumulative risk of 2.81. Poor lifestyle and excessive body weight can be the two major risk factors for breast cancer post-menopause.

The results also reveal that many Indians do not use dagga/cannabis, as only 39 disagreed to this demographic feature and only 11 agreed to be using dagga/cannabis. This can be largely due to the ban of certain drug substances in India. According to Wikipedia (2020) Indian government is strict with the Cannabis policy. According to Section 20 of the NDPS Act, holding a small quantity of weed can land you in jail for rigorous imprisonment of up to six months or a fine of Rs. 10,000 or both. This may be seen as a large positive improvement in the fight against post-traumatic stress disorder (PTSD).

Chemotherapy and radiotherapy (n=19) are the most common and preferred methods of treatment for PTSD as per the survey results in India. The least preferred method is combined therapy (n=1). Regarding the place of residence of the respondents, most respondents reported to reside in rural areas (n=35) and few reported to reside in tribal areas.

Results related to the PTSD
This section sought to examine the knowledge and information from patients about the subject matter Post Traumatic Stress Disorder (PTSD). A 6-point rated Likert Scale was used to access this using the basis of means/average. For analysis purposes, 3.5 was used as a cut off point for the items. Eight (8) items were examined in this section and the average mean of the items was 3.69, which was above the cut off 3.5 and this implies that the respondents had relative knowledge about PTSD, the difference might have been slight but according to arithmetic's it is regarded as positive. Highest scoring items were "I am having strong physical reactions when something reminds me of the stressful experience" (M=3.92, SD=0.24) and "Feeling distant from people" (M=3.92, SD=0.24). The lowest scoring item was "I suddenly feel or act as if the stressful experience was happening again" (M=3.42, SD=0.22).

From this research, it was evident that cancer patients and their families had little knowledge and awareness around cancer illnesses. This is an important observation in that this oblivion has a direct influence on the reaction to diagnosis, treatment, post-diagnosis mindfulness and behavior change, as well as the support structures – therefore on all the themes identified in this research. It is of utmost important that any member of the health care team be made aware of this, and that a thorough assessment is done of

the patient and family members' knowledge of skin cancer, as this could be indicative of the experience and support, they may need.

For instance, after being diagnosed with skin cancer, most participants changed their ways, especially around unprotected sun exposure. Most of the participants had been exposed to the sun a lot and enjoyed the outdoors in ways like tanning, doing sports like bowling, running, and tennis, hiking and cycling. Most of them and their families had (since the skin cancer diagnosis) changed their lifestyles to be more aware of sun protection and skin cancer prevention. Some of the participants shared that they had gone to extreme measures to obtain a tan in the past and if they'd known what they were doing to their skin, they would have done things differently.

SUGGESTIONS

It became apparent that cancer patients and family members of patients go through a lot of emotional tumult and therefore it is of vital importance that medical personnel or multi-disciplinary teams be aware of this when working with cancer patients. It was clear that at the point of diagnosis patients and their families experience so much shock and disbelief which is often difficult work through. Some even have immediate fears about death whereas others are oblivious of the severity of the conditions. The whole team should benefit, including the patients and their families regardless of whether they are educated or not. Practice should not only be based in their scope of work, but also in exceptional communication skills to ensure that information is given, clarified, and repeated to ensure all involved really understand their diagnosis, staging, treatment options, effects of treatment and support structures are identified.

It was mentioned as a need from participants, but also noted in theory, that knowledge or a good understanding of a condition and of the treatment lowers anxiety levels. All members of the multi-disciplinary team should ideally be aware and motivated to ensure patients' emotional needs are identified and addressed. Social workers have a vital role to play, as their skills to identify needs and deal with emotions are highly developed and have a good understanding of the family as a support system, as well as connecting patients and families with support systems within their environment and community.

In applying the biopsychosocial approach, relationships were recognized as central to providing health care. Self-awareness should be used as a diagnostic and therapeutic tool. The patient's history should be elicited in the context of their life circumstances, and it must be decided which aspects of biological, psychological, and social domains are more important to understanding and promoting the patient's health. Lastly, multidimensional treatment must be provided.

Social Work Implications

Social work is a practice based profession that promotes social change and development, social cohesion and empowerment and the liberation of people (IFSW, 2014). There is a lot of scope to practice social work profession with cancer patients. They serve as social case workers, social group workers, community organizers, social activists, social welfare administrators, social researchers, counsellors, communicators, and educators etc. (Abraham Mutluri, 2021). It is observed that many respondents have less knowledge on skin cancer. The social workers should create the awareness, knowledge on cancer, modes of transmission and treatment facilities. There is a need to conduct the pre and posttest Counselling and treatment Counselling continuously. It is important that Counselling or debriefing is not neglected for skin cancer patients, and perhaps close family members, to address and support their concerns and fears around the shock, the treatment challenges and possibly also accepting and working through scarring and a lifestyle of consciousness to prevent skin cancer and

frequent check-ups. It helps the cancer patients to come out from trauma. The social workers should create the awareness on the government welfare programmes meant for cancer patients. Social workers should design new interventions for the prevention, care, and treatment of cancer patients.

CONCLUSION

In conclusion, there are issues with the clinical practice and research around PTSD and cancer. Cancer diagnosis and treatment can lead to incredibly stressful moments for a person, which may lead to long-lasting psychosocial and psychological problems, because of the effects on cognitive, social, vocational, and physical functioning, diagnosing PTSD in cancer-related diseases can be difficult. In most of the research, cancer survivors are used more frequently than actual patients. It is necessary to conduct thorough assessments, develop suitable therapy pathways, and optimize the detection and management of distress and traumatic stress among recently diagnosed cancer patients. The government and non-governmental organizations should initiate the new interventions to provide care, support and treatment facilities to the cancer patients. There is a lot of scope for social workers to apply the social work methods and social work principles with cancer patients and their families to promote effective quality of life.

REFERENCES

1. Blevins CA, Weathers FW, Davis MT, Witte TK, Domino JL. (2015). The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and Initial Psychometric Evaluation. *J Trauma Stress*. 2015 Dec; 28(6):489-98.
2. Cancer Treatment Centers of America, (2008) Inc.: Encyclopedia.com". encyclopedia.com. Retrieved 29 August 2018.
3. CANSA. (2010). Skin cancer. Available: http://www.cansa.org.za/be-sunsmart
4. Cohen S, Murphy ML, Prather AA. (2019). "Ten Surprising Facts about Stressful Life Events and Disease Risk". *Annual Review of Psychology*. 70: 577–597.
5. Lok A, Frijling JL, van Zuiden M. (2018), posttraumatic stress disorder: current insights in diagnostics, treatment, and prevention. Ned Tijdschr Geneeskd. 2018; 161: D1905.
6. Global Cancer Statistics (2020). GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. CA Cancer J Clin. 2021 May; 71(3):209-249. doi: 10.3322/caac.
7. Medical dictionary for Allied Health. (2008). Boston: McGraw Hill Higher Education
8. Meric-Benstam, F. & Pollock, R.E. (2010). Oncology. In Burnicardi, F.C., Andersen, D.K., Billiar, T.R., Dunn, D.L., Hunter, J.G., Matthews, JB. & Pollock, R.E. (Eds). Swartz's Principles of Surgery. McGraw-Hill Companies, Inc.
9. Morra, M. & Potts, E. (2003). Choices: The most Complete Sourcebook for Cancer Information. 4th Edition. New York: HarperCollins Inc. 116
10. National Cancer Institute. 17 September 2007. Retrieved 28 March 2018
11. "U.S. Placed Department of Health and Human Services, Report Says". *The New York Times*. January 28, 2014.
12. Wade, Derick T; Halligan, Peter W (2017). "The biopsychosocial model of illness: a model whose time has come". *Clinical Rehabilitation*. 31 (8): 995–1004. doi:10.1177/0269215517709890. ISSN 0269-2155
13. (WHO) World Health Organization. 16 October 2017. Radiation: Ultraviolet (UV) radiation and skin cancer.
14. Matthias Unseld, Krammer, K., Lubowitzki, S., Jachs, M., Baumann, L., Vyssoki, B., ... & Gaiger, A. (2019). Screening for post-traumatic stress disorders in 1017 cancer patients and correlation with anxiety, depression, and distress. *Psycho-Oncology*, 28(12), 2382-2388.
15. Mopeli, N. E., & Abraham, M. (2022). Understanding the Psycho-Social and

Health Problems Faced by Homeless Population in Visakhapatnam City: An Empirical Study. *Research Journal of Humanities and Social Sciences*, *13*(2), 105-112.

16. Mutluri Abraham (2021) Role of Professional Social Workers in Promotion of Quality of Life of Children Orphaned by AIDS: A Study. *BSSS Journal of Social Work*, Vol. XIII, Issue-I, pp-108-119,

17. IFSW (2014). Global Definition of Social Work, retrieved on 31-05-2023 from https://www.ifsw.org/what-is-social-work/global-definition-of-social-work/

18. Nunnally, J.C. (1978) Psychometric theory. 2nd Edition, McGraw-Hill, New York

19. Pratt M, Apter, Vakart A, Feldman M, Fishman R, Feldman T, Zagoory-Sharon O, Feldman R (2013), maternal depression and child oxytocin response; moderation by maternal oxytocin and relational behavior, doi: 10.1002/da.22392. 2015 Jun 30.

20. Depression Anxiety. (2015) Sep; 32(9):635-46. doi: 10.1002/da.22392. Epub 2015 Jun 30. PMID: 26130435

21. http://en.wikipedia.org/wiki/radiotherapy. Accessed on 2008/04/11. Rees, G. 2004. Understanding cancer. Dorset: Family Doctor Publications.

22. http://en.wikipedia.org/wiki/"Modi govt plans changes to NDPS Act, could decriminalise possession of small quantities of drugs". The Print. Retrieved 22 November 2020

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