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CANCER AND QUALITY OF LIFE: IMPORTANCE OF GENDER AND MARITAL ADJUSTMENT IN PSYCHO-SOCIAL ONCOLOGY

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ABSTRACT

Objective: To study the breast and prostate cancer patients' quality of life and marital adjustment along with gender differences on these variables.

Study Design: Correlational study.

Place and Duration of Study: The study was conducted at Cancer Care Hospital and Research Centre Foundation, from Jun 2017 to Nov 2018.

Methodology: A sample of 100 cancer patients 50 women with breast cancer and 50 men with prostate cancer were procured using purposive sampling strategy. Two self-report scales namely World Health Organization Quality of Life (Brief version) for measuring quality of life and marital adjustment test for measuring marital adjustment were used for data collection.

Results: Results suggested that mean scores of women was significantly lower than men on physical (Men = 52.95 ± 8.47, Women = 48.40 ± 11.06), environmental (Men = 63.80 ± 7.74, Women = 53.70 ± 15.06) and psychological (Men = 46.55 ± 6.52, Women = 40.35 ± 12.07) domains of Quality of Life and marital adjustment (Men = 93.82 ± 19.14, Women = 85.20 ± 17.89). Pearson correlation values suggested that all domain of quality of life have significant positive relationship with marital adjustment (Physical = 0.49*** Psychological = 0.21* = 0.25** Environmental = 0.28**). Regression analysis revealed marital adjustment to be the most significant predictor of all domains of quality of life in cancer patients explaining 24% variance in physical, 5% variance in psychological and 8% variance in social and environmental domains.

Conclusion: The study concludes quality of life as an important dimension to be attended to cancer care. Furthermore, it emphasizes the need for psycho-social oncology and taking a gendered approach in cancer patients' counselling.

Keywords: Breast cancer, Gender, Prostate cancer, Pscyho-social Oncology, Quality of life.

INTRODUCTION

Psycho-social oncology is a budding area of medical care that needs attention in Pakistan[1] Like other latest perspectives on health care, psycho-social oncology holds that health is not the absence of disease; rather, it involves psycho-logical well-being and a satisfactory quality of life. On the other hand, the symptoms of disease cannot only be analyzed through a biological perspective; they also involve emotional distress and an emotional or affective component[2]. Thus, psycho-social oncology asserts that neither health nor disease can be understood without taking into account the concept of quality of life one is experiencing. Quality of life is conceptualized as a multidimensional construct which includes four areas of wellbeing: physical, social/family, emotional, and functional[3].

Prostate cancer is one of the third leading sites of tumors in men with a ratio of almost 7% of all malignancies and the third most common cancer in Pakistan[4]. The most common cancer among Pakistani women is breast cancer. Pakistan has one of the highest incidence rates of breast cancer in Asia. According to statistical reports, in the past nine years the percentage of breast cancer has increased from 10% to 95% in Pakistan, over 83,000 cases have been reported in Pakistan yearly[5]. Researchers have also identified that it is caused due to environmental and

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hormonal factors or change in lifestyle[6]. From detection to treatment, cancer is a life changing experience that has profound impact on quality of life and adjustment. The current research especially focuses on marital adjustment as a process closely linked with quality of life as both breast and prostate cancer patients undergo great family role changes as well as changes in masculine and feminine self-image due to their disease. Marital adjustment is a process in which a couple modifies themselves so that they can adapt themselves according to the new changes that are being held[7]. Hence, quality of life after marriage is linked with the adjustment among the spouses and research establishes that spousal support is inextricably linked to health outcomes[8].

The rationale of the research follows from the fact that while cancer has mostly been understood in terms of symptoms. The biomedical perspective in today's world has itself been expanded to include quality of life[9] Hence, the purpose of the current research is to investigate the quality of life of cancer patients according to internationally established measures by World Health Organization. Secondly, insofar as quality of life emphasizes the social domain, it is important to investigate how familial roles and marital adjustment are influenced by the experience of cancer. Thirdly, since Pakistani society largely consist of traditional familial roles strictly divided across men and women- home management being women's domain specifically. One can expect that the quality of life may differ across men and women in cancer patients. Furthermore, a common misconception about marital adjustment is that it only matters in younger age. Most recent research in the context of South Asia finds significant differences in marital adjustment of men and women from ages 50 to 65 years of age and find that marriage has a significant impact in these age groups[10]. Therefore, the current research investigates the quality of life of cancer patients, their marital adjustment and gender differences within them as well. The specific objectives of the study were to investigate the quality of life of breast and prostate cancer patients, to find out the relationship between quality of life and marital adjustment of breast and prostate cancer patients and to find out gender differences in quality of life and marital adjustment of breast and prostate cancer patients.

METHODOLOGY

The study employed a correlational design using survey method to gain observations on a sample consisting of 100 participants with 50 women diagnosed with breast cancer and 50 men diagnosed with prostate cancer. Sample was drawn with purposive sampling technique. The inclusion criteria was men diagnosed with prostate cancer and women diagnosed with breast cancer and undergoing treatment for at least six months using convenient sampling technique. Other types of cancer and patients under treatment for less than six months were excluded from the study as psychological adjustment to a condition may take time. Patients advancing beyond locally and regionally advanced cancer, i.e., those with distant metastasis, were also excluded as advanced stages of a disease have different psychological outcomes[11]. The study was conducted from June 2017 to November, 2018 from Cancer Care Hospital and Research Centre Foundation. The ethical principles as informed consent, confidentiality of the patient, providing them with knowledge of purpose of the study and ensuring access to any publications upon their demand were thoroughly followed. Certification of following ethical standards was approved from relevant authorities (Certificate No. P/CCHHRCF/14298/18). Treatments undertaken involved chemotherapy, radiotherapy, hormonal and targeted therapy. Amongst breast cancer patients, WHOQOL-BREF was used to measure the quality of life of patients of breast and prostate cancer and partners it also measures the mental health of participants. WHOQOL-BREF an abbreviated version of the WHOQOL-100. It has four domains: First is Physical health; second is Psychological health; third domain is Social relationships and the final is Environmental factors. The WHOQOL-BREF is a 26-item version of the WHOQOL-100 assessment. Its

reliability and other psychometric properties has established using cross-sectional data obtained from a survey of 11830 adults carried out in 23 countries (n=11,830)[12]. The original scores of WHOQOL- BREF are converted to a scale of 0 to 100 according to formula of the administration manual. Marital Adjustment Test[13] is a 15-item scale that is used to differentiate individuals that are well-adjustedin marriage from distressed ones. Data was analyzed using SPSS package 21 employing statistical techniques of t-test and correlation. Pearson r correlation was run to find out the relationship among marital adjustment and quality of life in cancer patients and their spouses. Independent Sample t-test was used to assess the group differences in the variables of marital adjustment and quality of life.

RESULTS

A total of 100 patients, 50 of prostate cancer and 50 breast cancer patients were studied. Age range of prostate cancer patients varied from 55 to 76 years (Mean=62.5, Standard deviation= 5.07). Age range of breast cancer patients varied from 36 to 65 years (Mean=49.4; standard deviation=10.8). 36% patients were from lower, 48% from middle and 16% were from upper socio-economic status. 33% were matriculates, 19% intermediate, 22% bachelors, 21% masters and 5% above masters' level. Among breast cancer patients, the major mode of treatment were: 43% were receiving chemotherapy, 39% were on radiotherapy and 18% on hormonal and targeted therapy. Among prostate cancer patients, 47% were receiving chemotherapy, 39% were on radiotherapy and 14% on biological/hormonal therapy.

Table-I shows the correlation between Quality of Life domains and overall scores and marital adjustment.

Results in table-I reveals the relationship of quality of life with marital adjustment among breast (women) and prostate cancer patients

Table-I: Inter correlations between quality of life and marital adjustment among breast and prostate cancer patients (n=100).

Measure	Physical Domain	Psychological Domain	Social Domain	Environmental Domain
Psychological Domain	0.53***			
Social Domain	0.62***	0.69***		
Environmental Domain	0.62***	0.72***	0.70***	
Marital Adjustment	0.49***	0.21*	0.25**	0.28**

Table-II: Gender differences in marital adjustment and domains of quality of life among prostate and breast cancer patients.

Variables	Men	Women	*p*-value
	Mean ± Standard Deviation	Mean ± Standard Deviation	
Physical Domain	52.95 ± 8.47	48.40 ± 11.06	0.02**
Psychological Domain	46.55 ± 6.52	40.35 ± 12.07	0.00**
Social Domain	24.10 ± 4.18	22.35 ± 8.29	0.186
Environmental Domain	63.80 ± 7.74	53.70 ± 15.06	0.00***
Marital Adjustment	93.82 ± 19.14	85.20 ± 17.89	0.02**

Table-III: Summary of stepwise regression to predict the Martial Adjustment, Education, Socio-Economic Status, Mode of Treatment on physical, psychological, social and environmental health (n= 100).

Variables	Physical			Psychological			Social			Environmental		
Marital Adjustment	B	SE	β	B	SE	β	B	SE	β	B	SE	β
	.26	.05	.50	.12	.05	.22	.10	.03	.28	.20	.07	.29
	F (1,98) = 31.32, *p*< .001			F (1,98) = 4.92, *p*< .001			F (1,98) = 8.05, *p* = .006			F (1,98) = 8.53, *p* = .004		
	R2 = .24, *p*< .001			R2 = .05, *p*< .001			R2 = .08, *p* = .006			R2 = .08, *p* = .004		

SE = Standard Error, β = Beta

(men). Results depicted a significant positive relationship between all domains of quality of life and marital adjustment supporting the prediction of the study. These results indicate better marital adjustment linked to higher levels of quality of life in the sample of both breast and prostate cancer patients. Independent samples t-test indicated a significant difference between men and women on physical, psychological and environmental domains of quality of life. However, no significant differences were found on social domain (table-II).

There was also a significant gender difference in marital adjustment with men significantly high on marital adjustment than women.

A single-variable model was indicated in which Martial Adjustment was only statistically significant in predicting Physical, psychological, Social and Environmental health. Furthermore, education, socio-economic status and mode of treatment were not found to be statistically significant predictors of physical, psychological, social and environmental domains of Quality of Life For Physical health, the value of R2 indicated that Martial Adjustment can explain 24% variance, ($F(1,98) = 31.32$, $p<0.001$). For psychological health, the value of R2 indicated that martial adjustment can explain 5% variance, ($F(1,98) = 4.92$, $p<.001$). For Social health, the value of R2 indicated that martial adjustment can explain 8% variance, ($F(1,98) = 8.05$, $p=.006$). For Environmental health, the value of R2 indicated that Martial Adjustment can explain 8% variance, ($F(1,98) = 8.53$, $p=0.004$). In clinical samples, low R2 values may result from the variance in the subjects themselves and with small sample sizes.

DISCUSSION

The results of the study supported a significant positive relationship between quality of life and marital adjustment among patients of breast and prostate cancer. There were significant differences among men and women in how they perceived their quality of life in physical, psychological and environmental domains. A significant gender difference in marital adjustment of breast and prostate cancer patients was also supported and men had significant higher scores on marital adjustment than women[14,15]. Owing to significant gender differences, it can be argued that patients of breast and prostate cancer experiencing different levels of quality of life and marital adjustment may have contributing factors which can be discussed keeping in view the local socio-cultural context.

Firstly, a significant relationship between quality of life of cancer patients and their marital adjustment can be linked to earlier research. Recent meta-analysis of 126 empirical researchers over the past five decades suggest a strong relation between marital quality and health related outcomes with better marital adjustment related to low mortality[16]. Social support and marital relation was strongly associated with health related quality of life in Asian breast cancer patients[17]. Furthermore, spousal relation is especially related to patient outcomes as research has established that dyadic appraisal and coping resulted in better psychological condition of cancer patients[18]. Also, a significant percentage of quality of life is found to be explained by dyadic adjustment with life partner among middle aged women in Muslim samples[19]. The results of the present study indicating marital adjustment with physical domain of quality of life are supported by earlier research demonstrating that the spousal support lessened pain's negative effect[20]. However, since the social, psychological and environmental domains are directed out onto vaster social arenas, they seem to involve more complex factors besides marital adjustment that can be investigated in future research.

Results of the current study suggest that patients of cancer experienced lowest quality of life in social domain. Previous research indicates that since breast and prostate cancer result in changes in masculine and feminine image, the patients may feel socially isolated[21]. Due to a generally repressed society, they may not socially express their emotional state with their significant others. While significant differences in physical domain of quality of life can also be

linked with earlier research where women are found to be generally more expressive about distress than men[22], women experiencing significantly lower quality of life in social domain than men can be linked to previous research literature suggesting that stress is a very serious and prominent symptom among patients of breast cancer which persist even after the treatment is over and badly effect self-care activity of a patient and their marital and family life. Earlier research also reveals that women diagnosed with breast cancer feels emotionally and physically weak; the pain interferes their daily life activities and they feel regretful about their disease[23]. While both breast and prostate cancer diagnosis has a lot of effects on marital adjustment and quality of life of patient and spouse. However, women scoring significantly lower on quality of life and marital adjustment than men during their experience of cancer can be viewed from a cultural perspective where women are usually care givers and men are usually the receivers of physical care. Though men are also care givers of their families as bread earners and carrying more challenges outside the home, the centrality of women in home in all matters is one reason of women feeling more stress than men after sudden role changes. Earlier research supports that cancer patients differed by gender in their quality of life[24].

Though a limitation of the study is that therapeutic intervention was not the direct goal of the study, it leads to further ideas about enhancing quality of life of cancer patients through spousal and family support[25]. As clear from above findings, the patients gendered identity and family roles associated with it are closely linked to prognosis. Hence, psycho-social aspects of oncology may should consider a gendered approach for more individualized care. In summary, deducing from the various cultural factors involved in the experience of cancer as well as the consideration of new psychological models of care and therapy lead towards the following conclusion.

CONCLUSION

The study concludes that breast and prostate cancer and its treatment pose serious risks for a patient's quality of life and adjustment in marital and familial roles. Health care system of cancer patients needs to undertake their quality of life in physical, social, psychological and environmental domains as there is a direct relation between stress and immune system. Furthermore, the study concludes that gender differences in the aftermath of cancer point out the importance of individualized counselling services for men and women utilizing models of psychological resilience towards the disease. Finally, the study highlights the importance of the budding area of psycho-social oncology to be introduced and practiced in Pakistan.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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