Assessing Psychosocial Morbidity And The Inverse Impact Of Psychological Distress On Quality Of Life Among Cancer Patients In Pakistan

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Abstracts

Purpose of the study was to find out the frequency psycho social morbidity (Perceived social support, and Psychological distress) while evaluating the personal satisfaction, quality of life among cancer patients in Pakistan. The research design of the present study was cross sectional conducted between January and June 2022. The study sample was a total of 100 participants (cancer patients) using the purposive sampling method to collect data. Results showed a significant linear regression equation was found ($F_{(1, 98)}$ =22.596, $p < .000$ with an R^2 of .187. R^2 adjusted = .179. Psychological distress and quality of life have an inverse relationship. Results reported high frequencies of both perceived social support and psychological distress.

Keywords: Mental Health, Psychological Distress, Social Support, Cancer

Introduction

The study was being directed to find out the frequency of psycho social morbidity (Perceived social support, and Psychological distress) while evaluating the personal satisfaction, quality of life among malignant growth patients. It was assessed that around 140,690 malignant growth cases were accounted for in 2019 and greater part of the revealed patients kept on combating the illness for the remainder of their lives. A review done in 2012 in regards to malignant growth pervasiveness in Pakistan, it was observed that very nearly 63,415 males and 85,590 females were determined to have the sickness (Saeed et al., 2019). Global statistics according to American Institute for Cancer Research dictate countries which have the highest prevalence rate for cancer are; Australia being number one, followed by New Zealand and Ireland. According to a research by Sarwar and Anum (2017) IARC gauges that universally 14.1 million instances of malignancies have arisen in 2012, in which most of cases nearly 8 million have been reported out of developing nations; incorporating nearly 80% populace in total (Torre et al., 2015).

According to Mohan et. al. (2016) the experience of having cancer has been related with significant degrees of mental pressure. Galen noticed a connection between dysphoric effect and cancer long ago. Correlations among neoplasia and mental issues were noted by various eighteenth and nineteenth century physicians. A sickness like cancer can have different mental sequelae because of the actual malignancy or because of related issues. The determination of cancer itself when uncovered to the patient can cause severe responses like shock and skepticism, trailed by outrage, depression, misfortune, and sadness.

Patients diagnosed with terminal diseases are more prone to psychological issues. Among many other psychological issues, adjustment disorder is the most well-known mental condition in cancer patients. Conceptually, these are messes with emotional and social manifestations which are reactions to a recognizable stressor. A perilous disease like cancer will have severe results.

There have been numerous criticisms against the frequency investigations of mental sickness in cancer. Most specialists restricted their concentration to explicit types of a mental issue, for example, "depression," and not many remembered formal complete mental assessment for their plans, different examiners focused on the overall mental change of the cancer patient, using side effect, and disposition measures to gauge levels of prosperity as opposed to quantify the predominance of the disorder.

Cancer is presently the subsequent driving reason for death around the world, and the worldwide burden keeps on developing. Somewhere in the range of 2008 and 2030, the worldwide occurrence is relied upon to increment by over 80%, with the best expands anticipated to happen in less-developed nations. Literature produced from developed nations unmistakably affirms that cancer patients hold greater paces of depression and

anxiety as opposed to everyone and that cancer comorbidity with depression brings about more noteworthy dismalness and more unfortunate cancer-related results.

Materials and Methods

Study Type

The research design of the present study was cross sectional conducted between January and June 2022.

Study Population and Sample

The study sample was a total of 100 participants (cancer patients) using the purposive sampling method to collect data. Participants were all 18 years of age and above. The structured interview was conducted with cancer patients and who gave their consent for participating in the research. All the ethical procedures as determined by Board of Advanced Studies were followed in the administration and scoring of the questionnaires and confidentiality of all participants was maintained.

Inclusion Criteria

A firm inclusion criterion was not reflected on religion the participants belong to. Education criteria was also set aside after experiencing real ground work.

Exclusion Criteria

The study sample did not include children or youngsters less than 18 years of age as well as those who had severe mental and health issues that were unable to respond to the questions in the study.

Data Collection Tools

Depression Anxiety and Stress Scale (DASS)

According to Lovibond (1995) depression is defined as dysphoria, hopelessness, devaluation of life, self-deprecation. The anxiety scale assesses autonomic arousal, skeletal muscular effects, situational anxiety, dryness of mouth and etc. The stress scale assesses the sensitivity of the levels of chronic, non-specific arousal. The DASS is a 21-item self-report instrument used to gauge the three related negative passionate conditions of despondency, uneasiness and strain/stress. Reliability and validity stands high. Alpha reliability = 0.80.

Multidimensional Scale of Perceived Social Support (MPSS)

Perceived social support is operationally defined as a person's surrounding environments on which they rely of depend upon in times of need. These reliance measures include relatives, family, friends and significant others residing in a person's environment.

These people cater to all emotional, psychological as well as materialistic needs of the individual depending on them in their time of need. The Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) is a 12- item proportion of apparent sufficiency of social help from three sources: family, companions, and life partner; utilizing a 5-point Liker scale (0 = emphatically dissent, 5 = unequivocally concur). This scale contains three subscales, each tending to an alternate wellspring of help, were distinguished and found to have solid factorial legitimacy: Family, Friends, and Significant Other. Also, the exploration exhibited that the MSPSS has great inside and test–retest unwavering quality just as moderate develop legitimacy. As anticipated, significant degrees of saw social help were related with low degrees of sorrow and nervousness symptomatology as estimated by the Hopkins Symptom Checklist. Sexual orientation contrasts concerning the MSPSS are additionally introduced.

Quality of Life (WHOQOL)

According to WHO the Quality of Life is equivalent to a person's perception of their position in their current circumstances. The values and considerations of their circumstances in which they reside include cultural and society being primary sources of measurement. The WHO-QOL-100 personal satisfaction evaluation was created by the WHOQOL Group with fifteen global field communities, all the while, trying to foster a personal satisfaction appraisal that would be pertinent diversely. WHO-QOL is a 26 item measuring scale for assessing quality of life. WHO's drive to foster a personal satisfaction evaluation came forth for multiple reasons. Since then there has been an expanding in the assessment of well-being, past conventional well-being markers like mortality and dreariness (for example World Bank, 1993; WHO, 1991), to integrate proportions to gauge the level of sickness and disability on routine conduct (as put forward by Ailment Impact Profile; Bergner, Bobbitt, Carter et al, 1981), saw wellbeing measures (for instance Nottingham Health Profile; Hunt, McKenna and McEwan, 1989) and incapacity/practical status assesses (for example the MOS SF-36, Ware et al, 1993).

Analysis of Study Data

To analyze the study data frequencies and simple linear regression analysis was used in SPSS.

Results

The demographic statistics in table 1 show the frequencies and percentages of the demographic variables. The sample consisted of mean age range of 45.58 of 37% males and 63% females. The sample consisted of cancer patients only. The sample was categorized on the basis of socioeconomic status having upper, middle and lower class having frequency of upper class 36%, middle class 53% and lower class 11%. The sample was also categorized on the basis of education having frequency of illiterate 4% primary

12% middle 8%, matric 16% intermediate 15% graduation 29% post-graduation 16%. The sample was also categorized on the basis of family structure nuclear 23% joint family system 77%. The sample consisted of marital status as well married 77% unmarried 9% widowed 12% separated 2%.

Descriptive statistics and Cronbach's alpha reliability coefficients in Table 2 shows the descriptive properties and the reliability of the tests used in this study. All three instruments WHO Quality of Life Scale, Depression Anxiety Stress Scale, and Multidimensional Perceived Social Support Scale along with their sub-scales show good reliability. According to Cronbach's Alpha Reliability test scores should all be higher than 0.5 which indicates good reliability.

Table 1 Demographic Variables of Study
Variables (N=100)

Demographics Variables	F	%
Gender		
Female	63	63.0
Male	37	37.0
Education		
Illiterate	4	4.0
Primary	12	12.0
Middle	8	8.0
Matric	16	16.0
Inter	15	15.0
Graduation	29	29.0
Post-Grad	16	16.0
Socio Economic Status		
Lower class	11	11.0
Middle class	53	53.0
Upper class	36	36.0
Family structure		
Nuclear	23	23.0
Joint	77	77.0
Marital status		
Married	77	77.0
Unmarried	9	9.0
Widowed	12	12.0

Separated	2	2.0
Age	Mean age = 45.58	SD= 12.271

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Table 2 Descriptive Statistics and Alpha Reliability Coefficients of Study Variables (N=100)

Scales	Items	Cronbach's Alpha	M	SD
Physical	7	.56	22.50	3.81
Psychological	6	.56	20.51	3.68
Social Relations	3	.84	10.79	2.91
Environmental	8	.85	26.57	5.71
Depression	7	.83	6.67	4.16
Anxiety	7	.77	6.72	3.70
Stress	7	.83	7.78	4.32
Family	4	.89	19.11	6.87
Friends	4	.93	18.59	7.31
Significant Others	4	.91	19.87	7.32

Table 2 shows the descriptive properties and the reliability of the tests used in this study. All instruments, WHO Quality of Life Scale, Depression Anxiety Stress Scale, Multidimensional Perceived Social Support Scale along with their sub-scales show good reliability. Sub-scale Religious Denial of the Brief Cope Scale showed low reliability.

Table 3 Frequency table for Psychosocial Morbidity DASS (N=100)

Score Rating	Depression		Anxiety		Stress	
	F	**%**	**F**	**%**	**F**	**%**
Normal	40	40.0	23	23.0	55	55.0
Mild	6	6.0	22	22.0	5	5.0

Score Rating	Depression		Anxiety		Stress	
	F	%	F	%	F	%
Moderate	41	41.0	15	15.0	27	27.0
Severe	10	10.0	12	12.0	10	10.0
Extremely Severe	3	3.0	28	28.0	3	3.0

Table 3 shows the frequency and score rating for psychosocial morbidity measured by the Depression Anxiety Stress Scale with frequencies distributed as Normal, Mild, Moderate, Severe and Extremely Severe.

Table 4 Frequency table for Psychosocial Morbidity MPSS (N=100)

Family		Friends		Significant Other	
Rating	F / %	Rating	F / %	Rating	F / %
6	4 4.0	4	5 5.0	5	6 6.0
10	6 6.0	7	6 6.0	10	5 5.0
11	6 6.0	9	6 6.0	11	5 5.0
12	5 5.0	14	16 16.0	12	6 6.0
14	10 10.0	15	6 6.0	13	6 6.0
15	11 11.0	18	12 12.0	15	10 10.0
17	8 8.0	19	4 4.0	20	11 11.0
20	10 10.0	20	5 5.0	21	8 8.0
22	4 4.0	21	6 6.0	23	5 5.0
23	1 1.0	22	4 4.0	25	4 4.0
24	5 5.0	24	4 4.0	27	16 16.0
25	4 4.0	26	4 4.0	28	18 16.0
27	4 4.0	28	22 22.0		
28	22 22.0				

Table 4 shows the frequency and score rating for psychosocial morbidity measured by the Multidimensional Perceived Social Support Scale. Table is further categorized by sub-scales of Family, Friends and Significant others.

Table 5 Simple Liner regression model impact analysis of Psychosocial Morbidity on Quality of Life. (N=100).

Variables	B	SE	B	T	P
Physical	-.069	.034	-.203	-2.049	.043
Psychological	-.095	.032	-.289	-2.984	.004
Social Relation	-.126	.023	-.487	-5.525	.000
Environmental	-.199	.047	-.390	-4.199	.000
Qol Total	-.489	.103	-.433	-4.754	.000

Table 5 shows how the independent variable, Psychological Distress predicted the dependent variable i.e. variable of Quality of Life. Simple linear regression was calculated to predict the Quality of life based on the patients psychological distress. A significant linear regression equation was found (F(1, 98) =22.596, p < .000 with an R² of .187. R² adjusted = .179. The regression coefficient (B = -.489) indicated that an increase in one unit of psychological distress corresponded, on average, to a decrease in Quality of life to .489 per unit. Psychological distress and quality of life have an inverse relationship.

Discussion

High psychosocial morbidity was found among cancer patients in Pakistan. Significant frequencies were found in levels of depression anxiety and stress among cancer patients. Malignant growth has critical psychosocial implications, related to the effect of the illness and its treatment on the individual mental and profound dimensions, just as on the elements of interpersonal and social connections (Girgis et al., 2013). Table 3 shows the frequency and score rating for psychosocial morbidity measured by the Depression Anxiety Stress Scale with frequencies distributed as Normal, Mild, Moderate, Severe and Extremely Severe. Depression was marked as 41% Moderate, 10% Severe and 3% extremely Severe. Anxiety was marked as 15% Moderate, 12% Severe and 28% extremely Severe. Stress was marked as 27% Moderate, 10% Severe and 3% extremely Severe. It can be further translated as out of 100 cancer patients, 54% of patients suffered from Moderate to Extremely Severe levels of Depression, 55% of patients suffered from Moderate to Extremely Severe levels of Anxiety, 40% of patients suffered from Moderate to Extremely Severe levels of Stress. Similarly Mushtaq et. al. (2017) concluded in a study that depression was normal in patients in advanced phases of cancer

and in those enduring longer after being diagnosed. Table 4 shows the frequency and score rating for psychosocial morbidity measured by the Multidimensional Perceived Social Support Scale. Table 4 is categorized by sub-scales of Family, Friends and Significant others. These categories help identify a patients support system while battling terminally ill disease such as cancer. The score range was 23 being minimum and 84 being maximum, the mean score value 57.32 of patients revealed a very good social support system comprising of the social support extended to them by family, by friends and their significant others. 39% of patients reported a total score ranging between 64 to 84 which interprets an excellent perceived social support system. Hence hypothesis 1 established with statistical evidence marking high psychosocial morbidity among cancer patients.

There was a negative impact of psychological distress on quality of life among cancer patients. A study by Chabowski et. al. (2018) chronicled the intricate association between quality of life, psychological well-being and adjusting to cancer. As explained in previous researches increased levels of psychological distress lead to decreased levels of quality of life as well as decrease of personal satisfaction, hindrance in social connections, hazard of self-destruction, longer rehabilitation time, helpless adherence to treatment and abnormal sickness conduct, family dysfunction, and, possibly, more limited endurance (Mehta & Roth, 2015; Mitchell et al., 2011). Table 5 shows how the independent variable, Depression Anxiety Stress Scale (DASS), predicted the dependent variable i.e. variable of Quality of Life. Simple linear regression was calculated to predict the Quality of life based on the patients' psychological distress. A significant linear regression equation was found ($F(1, 98) = 22.596$, $p < .000$ with an R^2 of .187. R^2 adjusted $= .179$. The regression coefficient ($B = -.489$) indicated that an increase in one unit of psychological distress corresponded, on average, to a decrease in Quality of life to .489 per unit. All the sub-scale variables of Quality of life were reported in Table 5. Psychological distress being the independent variable had a negative relation with the dependent variable, Quality of life all together as well as all its sub-scale variables. The sub-scale variables of quality of life included Physical, Psychological, Social Relations and Environmental. All dependent variables of quality of life were negatively associated with psychological distress. If psychological distress increases quality of life decreases, if psychological distress decreases quality of life increases. Psychological distress had an inverse relationship impact on Quality of life. Hence hypothesis 2 established with empirical evidence formed by a simple linear regression equation ($F (1, 98) = 22.596$, $p < .000$ with an R^2 of .187. R^2 adjusted $= .179$.

Suggestions and Limitations

The biggest limitation was data collection. The data being collected was sensitive and extremely time consuming in nature as cancer patients are already extremely exhausted and burned out thin due to excessive radiation, cancer medication, steroids and

chemotherapy. The second limitation was the Covid-19 restraint. Since the pandemic the dynamics of business as usual has significantly change, hospitals did not allow everyone inside the oncology ward as inbound or outbound cancer patients would come in for follow up. All these cancer patients were immune compromised. More than usual Covid-19 protocols were imposed by hospitals while collecting data from oncology wards.

Study can be improved by increasing the sample size and including other areas too apart from Islamabad and Rawalpindi. Due to covid-19 it was very difficult to collect data. A detailed national and provincial policy should be designed, formulated, enacted and implemented to ensure educating the primary care givers, doctors, nurses, cancer patients and all related medical worker with better coping strategies towards any terminally ill disease.

A very common phenomenon found in North American countries, there are Cancer support groups for people suffering from cancer as well as their primary care givers. A detailed national and provincial policy should be designed, formulated, enacted and implemented to ensure such platforms exist in Pakistan widely so people can belong to a sense of community. Sharing ones burdens helps ease psychological distress.

There was resistance from organizations as well as hospitals to conduct research on cancer patients. An important observation made during data collection was that most cancer patients have a very poor self-image of themselves. A detailed national and provincial policy should be designed, formulated, enacted and implemented to ensure campaigns that create awareness about the prevalence of cancer and work towards improving self-image of those who are suffering from the disease or are the survivors of the disease.

Conclusion

The current study was helpful in understanding and estimating the frequency of psychosocial morbidity (Perceived social support and Psychological distress) while evaluating the personal satisfaction, quality of life among cancer growth patients. Eventually the current examination upholds what most previous studies have contended. Large number of researches report high frequencies of psychological distress. The research was different because it assessed whether high frequencies of psychosocial morbidity would exit as well, the results report both high levels of psychological distress and perceived social support among cancer patients in Pakistan. To improve future examination is important to be mindful of ethical boundaries while conducting research especially on Cancer patients. Organizations, hospitals and communities should have a more open approach for research in various areas of Pakistan. Additionally, different techniques could be thought about for future exploration.

References

Almutairi, K., Alhelih, E., Al-Ajlan, Abdulrahman, & Vinluan, Jason. (2015). A cross-sectional assessment of quality of life of colorectal cancer patients in Saudi Arabia. Clinical and Translational Oncology. 18. 10.1007/s12094-015-1346-3

Büttner, M., Zebralla, V., Dietz, A., & Singer, S. (2017). Quality of Life Measurements: Any Value for Clinical Practice. Current treatment options in oncology, 18(5), 30 https://doi.org/10.1007/s11864-017-0470-4

Caffo, O., Amichetti, M., Ferro, A., Lucenti, A., Valduga, F., & Galligioni, E. (2003). Pain and quality of life after surgery for breast cancer. Breast cancer research and treatment, 80(1), 39–48. https://doi.org/10.1023/A:1024435101619

De Mello Ramirez Medina, J., de Araujo Trugilho, I., Mendes, G., Silva, J. G., da Silva Paiva, M. A., de Aguiar, S. S., Thuler, L., & Bergmann, A. (2018). Advanced Clinical Stage at Diagnosis of Breast Cancer Is Associated with Poorer Health-Related Quality of Life: A Cross-Sectional Study. European journal of breast health, 15(1), 26–31 https://doi.org/10.5152/ejbh.2018.4297

Finck. C., Barradas. C., Zenger. M., Hinz.A., (2018) Quality of life in breast cancer patients: Associations with optimism and social support, International Journal of Clinical and Health Psychology, Volume 18, Issue 1, ISSN 1697-2600, https://doi.org/10.1016/j.ijchp.2017.11.002.

Girgis, A., Lambert, S., Johnson, C., Waller, A., & Currow, D. (2013). Physical, psychosocial, relationship, and economic burden of caring for people with cancer: a review. Journal of Oncology Practice, 9, 197–202. doi: 10.1200/JOP.2012.000690

Hatton, C., & Ager, A. (2002). Quality of life measurement and people with intellectual disabilities: a reply to Cummins. Journal of Applied Research in Intellectual Disabilities, 15(3), 254-260. doi.org/10.1046/j.1468-3148.2002.00124.x

Kershaw, T., Northouse, L., Kritpracha, C., Schafenacker, A., Mood, D. (2004) Coping strategies and quality of life in women with advanced breast cancer and their family caregivers. Psychol. Health 2004, 19, 139–155.

Mehta, R.D., & Roth, A.J. (2015). Psychiatric considerations in the oncology setting. CA Cancer Journal for Clinicians, 65, 300–314. doi: 10.3322/caac.21285

Mushtaq, R., Ansar, A., Bibi, A., Khurram, H., Ali, J., Islam, A. et al. (2017). Frequency of Depression Among Cancer Patients. Ann. Pak. Inst. Med. Sci. 13(1), 83-87.

Noll, H. H. (2004). Social indicators and Quality of Life research: Background, achievements and current trends. In Advances in Sociological Knowledge (pp. 151-181). VS Verlag für Sozialwissenschaften, Wiesbaden .doi.org/10.1007/978-3-663-09215-57.

O´smiałowska, E.. Misiag, W., Chabowski, M., JankowskaPolanska, B. (2021) Coping Strategies, Pain, and Quality of Life in Patients with Breast Cancer. J. Clin. Med. 2021 (10), 4469. https://doi.org/ 10.3390/jcm10194469

Paloutzian, R.F., Ellison, C.W. (1982). Loneliness, spiritual well-being and the quality of

life. Loneliness: A Sourcebook of Current Theory, Research, and Therapy, 224-237

Saeed, S., Khan, J.A., Iqbal, N. et al. (2019). Cancer and how the patients see it; prevalence and perception of risk factors: a cross-sectional survey from a tertiary care centre of Karachi, Pakistan. BMC Public Health 19 (360) 2-7. https://doi.org/10.1186/s12889-019-6667-7

Sarwar, M. R., Saqib, A. (2017). Cancer prevalence, incidence and mortality rates in Pakistan in 2012, Cogent Medicine, 4(1), 1-13, DOI: 10.1080/2331205X.2017.1288773

Shen, A., Qiang, W., Wang, Y., Chen, Y. (2020). Quality of life among breast cancer survivors with triple negative breast cancer--role of hope, self-efficacy and social support. European Journal of Oncology Nursing, 46, 1017-71. DOI: 10.1016/j.ejon.2020.101771

Zimet, G.D., Dahlem, N.W., Zimet, S.G. & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. Journal of Personality Assessment, 52, 30-41

Zimet, G.D., Powell, S.S., Farley, G.K., Werkman, S. & Berkoff, K.A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. Journal of Personality Assessment, 55, 610-17