Comparison of quality of life among cardiac, hepatic, cancer, and dermatological patients

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Abstract

Objective: To assess the level of quality of life (QOL) in patients suffering from various cardiac, cancer, hepatic, and dermatological diseases.

Method: A total of 339 patients of cardiac, cancer, hepatic, and dermatological diseases from DHQ/Allied hospitals of Faisalabad participated in this study through purposive convenient sampling technique. Quality of life was measured by WHO QOL-BREF (Validated Urdu Version) while demographic variables were recorded on a demographic sheet. The results were obtained by using analysis of variance (ANOVA) on SPSS 13.

Results: Out of 339, 156 (46%) patients were males while 183 (54%) patients were females. Of the total, 99 (29.2%) belonged to the lower socio economic status, 113 (33.3%) belonged to the lower middle, 62 (18.3%) belonged to the middle, and 65 (19.2%) belonged to the upper middle socio economic status. In terms of education, 49 (14.5%) were illiterate, 110 (32.3%) had primary level education, 118 (34.8%) had middle level education, 21 (6.2%) had done matriculation, 17 (5%) had intermediate, 14 (4.1%) were graduates, 8 (2.4%) had done masters. Of the whole lot, only 2 (0.6%) patients were professionals. Results showed that the quality of life was most deteriorated in the domain of physical health; while psychological health was the second most deteriorated domain. Social relationship was the least affected domain, while environment was the second least affected area. Quality of life of hepatic patients was significantly lower than dermatological patients with respect to physical health and environment, lower than cancer patients in relation to psychological health, and lower than cardiac patients in the social relationship domain. The quality of life of cardiac patients was noted to be significantly higher than the other three categories in the domains of psychological health and environment.

Conclusion: In the face of the evidence of high deterioration in the quality of life of the patients in terms of physical and psychological health, medical units should be better equipped with facilities to enhance a sense of betterment in patients. The treating doctors should be better trained to give due consideration to this important aspect of management. Moreover, the role of liaison psychiatry should also be incorporated.

Keywords: Quality of life, Cardiac, Cancer, Dermatological, Hepatic (JPMA 62: 232; 2012).

Introduction

Good quality of life (QOL) encompasses more than just good health. At a basic level, it can represent the sum of a person's physical, emotional, social, occupational and spiritual well-being, the study of which is complicated by the fact that there is no consensus as to what constitutes QOL.[1] Quality of life is defined as individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.[2]

Quality of life has become an important aspect of patient healthcare in developed countries. However, in developing countries where the cost of healthcare has always been an issue, long lasting diseases such as liver cirrhosis, cancers and cardiac diseases and their complications are a major health problem and cause a big challenge to the health economy. Besides, it is also a challenge to the developing status of the country since the gauge of development has been shifted onto the health facilities provided to the people and quality of life of the nation.

Quality of Life (QOL) is now attaining important status in clinical patient management in developing countries as well. It is also important in measuring the impact or burden of a chronic disease like liver cirrhosis.[3] It is evident that patients with chronic Hepatitis C have a compromised quality of life, a higher prevalence of fatigue and psychiatric disorders. These effects do not seem to be related to the severity of liver inflammation or fibrosis. What remains unclear is the exact role of the HCV virus in impairing the quality of life. It is likely that other related and seemingly unrelated factors such a psychological status and ethnic background may also play a role in the subjective reporting of QOL parameters.[4]

These patients suffer from fatigue prurutus, loss of self

esteem, and depression that is poorly evaluated by clinical measures.[3] Measuring QOL provides a better measurement of these conditions.[5,6] The importance of impact of healthcare interventions on patient's everyday life is increasingly recognised rather than on patient's health alone.[7] The tradeoffs between the potential adverse consequences of a particular intervention and the anticipated benefits are now increasingly dependent upon how patients perceive and value different aspects of their health.[3] A study with chronic liver cirrhosis patients found decreased QOL of these patients. Activity domain was the most damaged domain, while the least affected domain was emotional function.[3]

A research has concluded that more effective the treatment of one disease, the more it would improve the QOL of patients which had deteriorated as a result of the disease. This should provide a basis to infer that medical diseases decrease the QOL of the sufferer.[8]

In developing countries like Pakistan, quality of life has been a rather neglected area, with very low researches being conducted on the issue. Present study was designed to evaluate the quality of life among the patients suffering from different types of hepatitis, cancers, cardiac and dermatological diseases. The purpose of the study was to compare the QOL scores of these four types of patients to see which one affected the patients the least and the most. The study was also aimed at finding out which QOL domain was the most affected and which was the least affected.

Patients and Method

The quasi-experimental study had 339 patients from DHQ/Allied hospitals affiliated with Punjab Medical College, Faisalabad. They participated in the study through purposive convenient sampling technique. They were accessed from four departments i.e. cardiology, dermatology, oncology, and hepatic diseases - 102 from the liver centre of DHQ hospital, 100 from cardiac centre of DHQ hospital, 77 from the dermatology department of DHQ hospital, and 60 from the oncology department of the Allied Hospital. The patients were approached with the help of relevant liaison medical officers.

Validated Urdu Version of WHO QOL-BREF[9] was used to assess the quality of life of the patients. It was initially developed by the WHO QOL group in an attempt to develop a quality-of-life assessment that would be applicable cross-culturally. The WHO QOL-BREF is a self-administered instrument that gives a measure of the quality of life in four domains: Physical health, psychological health, social relationships, and environment.

WHO QOL-BREF consists of 26 items, with items 3,4,10,15,16,17 and 25 representing satisfaction with physical functioning, items 5,6,7,11,18 and 26 representing psychological dimensions, items 19,20,21 representing social dimension, and items 8,9,12,13,14,22,23 and 24 reflecting satisfaction with environment. Finally 1 reflects overall POL and 2 general health.

The Bio data form distributed among the patients consisted of questions about personal and demographic variables. The researchers approached the participants with the help of liaison medical officers appointed by the head of each department. The researchers took a verbal informed consent from the participants before booklets containing demographic variable pro-forma and QoL assessment tool were handed over to them to fill in. The team of raters was trained to help the illiterate patients to fill in the pro-forma When all the data had been collected, raw results were tabulated along with demographic information obtained from the participants. Descriptive statistics and analysis of variance was computed by using SPSS 13.0.

Results

Descriptive statistics showed that out of 339, 156 (46%) patients were males while 183 (54%) were females. Of the total, 99 (29.2%) belonged to the lower socio economic status, 113 (33.3%) belonged to the lower middle, 62 (18.3%) to the middle, and 65 (19.2%) to the upper middle socio economic status. In terms of academic background, 49 (14.5%) were illiterate, 110 (32.3%) had primary level education, 118 (34.8%) had studied up to the middle level, 21 (6.2%) had done matriculation, 17 (5%) had done intermediate, 14 (4.1%) were graduates, while 8 (2.4%) had done masters. Only 2 (0.6%) of the total were professionals. In the collective sample of all the four departments, data analysis showed that physical health domain was the most affected QOL parameter with a mean of 12.1256. Psychological health and environment were the second and third most affected domains respectively, while social

Table-1: Means and standard deviations of four domains of QOL.

QOL Domains	N	Minimum	Maximum	Mean	Std. Deviation
Social Relationship domain	334	5.33	20.00	14.9461	3.22720
Environment domain	336	5.50	36.00	13.7798	3.00754
Psychological domain	336	6.67	19.33	13.0540	2.36026
Physical health domain	336	6.29	19.43	12.1256	2.53382
Valid N (listwise)	334				

Table-2: QOL Physical health domain and type of disease.

Type of disease	n	Mean	Std. deviation
Cardiac	100	12.1771	3.30483
Hepatic	102	11.3754	1.75930
Cancer	58	12.0985	2.14915
Dermatology	76	13.0852	2.20882

Table-3: QOL Psychological health domain and type of disease.

Type of disease	n	Mean	Std. deviation
Cardiac	100	14.3467	2.47906
Hepatic	102	11.9621	2.09926
Cancer	58	12.9770	1.82773
Dermatology	76	13.0540	2.10033

Table-4: QOL Social relationship domain and type of disease.

Type of disease	N	Mean	Std. deviation
Cardiac	100	15.8133	3.63556
Hepatic	101	13.9208	2.85857
Cancer	58	15.1494	2.62777
Dermatology	75	15.0133	3.21476

Table-5: QOL Environment domain and type of disease.

Type of disease	n	Mean	Std. deviation
Cardiac	100	15.2400	2.37355
Hepatic	102	12.4951	2. 68054
Cancer	58	13.2500	3.88118
Dermatology	76	13.9868	2.54817

relationship was the least affected domain, having a mean of 14.9461 (Table-1). Analysis of variance showed that QOL scores of the patients on physical health domain were significantly variable among the four types of patients, F (3,332) = 6.986, p, <0.05. Post hoc Scheffe's test showed that QOL scores of dermatological patients were significantly higher than the hepatic patients. While these scores are not found to be statistically different from cancer and cardiac patients' scores on the physical health domain (Table-2). QOL scores on the psychological health domain were significantly different among the four departments, F (3,332) = 20.480, p<0.05. In post hoc Scheffe's test, the mean scores of cardiac patients were seen to be higher than the hepatic, cancer and dermatological patients (Table-3). Significant differences in QOL scores were also evident among the four types of patients as far as the social relationship domain was concerned, F (3,330) = 6.167, p<0.05. Post hoc Scheffe's test showed that QOL scores of cardiac patients were significantly higher than hepatic patients, while no significant differences were noticed with cancer and dermatological patients (Table-4). The QOL score of patients on the domain of environment were significantly different from each other, F (3,332) = 16.884, p<0.05. Deeper analysis with post hoc Scheffe's test showed that scores of cardiac patients were higher than hepatic, cancer and dermatological patients while scores of hepatic patients were significantly lesser than dermatological patients (Table-5).

Discussion

Results of the study show that physical health is the most affected domain in overall sample from all the four departments. It may be because medical diseases are clinically manifested in bodily symptoms and when a patient suffers the complaints regarding physical realm, it deteriorates the quality of life of the patient. It is also confirmed by other researches. A study has found activity as the most affected QOL domain.[3] The second most affected domain was psychological health. Mind and body relationship has long been established; body affects the mind in many ways and vice versa.[10] Whenever a person gets physically disturbed, it also affects him mentally because the brain that controls the whole body is the seat of mind. Then comes the domain of environment which comes third as far as QOL deterioration is concerned. This domain is less affected because researches have not shown any relation between the perception of environment and the quality of life of persons, as the perception of environment is said to be more attached to urban press.[11] The facts that affect perception of environment are pollution, noise, crowding and fear of crime.[12] The least affected domain is that of social relation. Researches have shown that disturbances in social relations are associated with lack of support from the partner.[13] When the physical health of a patient is damaged, it usually invites more social support from not only the spouse, but also from the other relatives. That's why the QoL scores of the collective sample from all the four departments is the highest on this domain. Other researches agree with the findings, e. g., a research has found emotional function domain as the least affected domain of quality of life.[3]

Measuring QoL is an important indicator of the burden of disease.[5] In domain-wise analysis, interesting results were located. On the physical health domain, significant differences were found between dermatological and hepatic patients. Hepatic patients had noticeably low scores as confirmed by previous researches.[3] It is obvious that the disease which affects physical activity the most (Hepatic diseases) would decrease the QOL scores on physical domain more than the diseases which do not usually interfere the daily activities (dermatology).

On psychological health and environment domains, cardiac patients were significantly better than the other three types. It may be because awareness about heart diseases is

more and for a longer period of time than the hepatic, cancer and dermatological diseases. Another reason may be that they are being treated in better environments like air-conditioned and better managed units. Psychological health of hepatic patients was significantly lower than cancer patients. It may be because the stigma attached to the hepatic diseases is greater than the stigma attached to cancers.

The social relationship domain of cardiac patients was better than the hepatic patients because hepatic diseases are thought to be easily transmitted to others which makes relatives and care-givers to stay at a distance from hepatic patients. This probably resulted in the perception among the patients that their relatives were not providing them quality time and effort that they needed.

Differences of hepatic patients with dermatology and cancer patients were noticeable because cancer is not supposed to be a contagious disease and dermatological patients do not depend upon other care-givers and their avoidance of direct bodily contact or direct sharing of utensils and tools might have lowered their perception of quality of life on the social relationship domain. Hepatic patients also scored lower than dermatological patients on the domain of environment. It may be because hepatic diseases are usually chronic as these are diagnosed at the terminal stage. Hence, hepatic patients are usually restricted to their beds, which confine their environment. This restricted environment decreased their QOL perception on the domain of environment. The patients of dermatology are seldom restricted to their beds and hence the perception of environment is not as much deteriorated among them.

Deteriorated QOL perception among patients of a medical disease is not a newly found phenomenon. Previous research evidence has indicated that QOL deteriorates as a result of diseases.[8]

Overall, hepatic patients have scored lower on almost all the four domains than the patients of other three departments. Other researches have also found that quality of life has significantly deteriorates in hepatic patients which is a result in agreement with our findings.[14-17]

Conclusion

The physical health domain is the most affected in all types of patients. Patients suffering from hepatic diseases, they have low scores regarding QOL on all the four domains as compared to the other three groups. Cardiac patients, on the other hand, have shown relatively higher score in psychological and environment domains. Due to high QoL deterioration, all medical units should be better equipped with facilities to enhance a sense of betterment among the patients. Doctors working in such units should be given relevant training during their rotation in psychiatry units to give due consideration to this important aspect of management along with routine treatment. When psychological domains are affected, more emphasis should be given to consultation-liaison psychiatry.

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