Research Article

Quality of life and its correlates with emotional wellbeing, functional status, family supports and the socioeconomic status of patients with cirrhosis of liver admitted in selected hospitals of Udupi Taluk, Karnataka, India

Abstract

Background: Cirrhosis of liver is a devastating and disabling chronic disease.

Aim: an explorative survey was conducted among the patients with cirrhosis of liver in Udupi taluk hospitals, with the objective to assess the Quality Of Life, emotional wellbeing, functional status, socioeconomic status, family supports of the patients with cirrhosis of liver and also to find the relationship between these variables. Data was collected using purposive sampling technique from 126 patients who was conscious, alert, admitted and diagnosed with cirrhosis of liver in the selected hospitals of Udupi taluk which had more than 50 bed strength.

Results: Findings of the study revealed that majority of the samples were male 97.6% (123). Majority of them 42.1%(53) belong to the group of 51-60 years. Most of the patients (42.1%) rated their QOL as neither poor nor good. Majority of the 52.4%(66) of the patients with cirrhosis were emotionally stable, Most of the patients 35.7%(45) were in the category of moderate dependence status. Seventeen percentages (13) of them were totally dependent. High positive correlation was shown between emotional wellbeing and quality of life. (ρ=0.920 p<0.001), weak positive correlation was found between QOL and socio economic status (ρ=0.275 (p<0.002), and also there was a weak positive correlation between QOL and family support (ρ=0.44 p<0.001).

Conclusion: Samples had neither good nor poor quality of life. Emotional wellbeing and family support considerably contributed to the quality of life

Keywords: quality of life, cirrhosis of liver, emotional wellbeing, functional status, family supports

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Introduction

Cirrhosis represents a late stage of progressive hepatic fibrosis characterized by distortion of the hepatic architecture and the formation of degenerative nodules.[1] Assessment of quality of life reflects advanced consumer centered path to health care services. Here patients own subjective feelings of their experiences are considered rather treating the patients as objects for the skillful care in the hands of health care professionals.[2]

Materials and method

A survey approach was used with an explorative design in order to achieve the objective of assessing the quality of life, emotional wellbeing, functional status, family support and socioeconomic status of patients with cirrhosis of liver also to find the relationship among quality of life, emotional wellbeing, functional status, family support and socioeconomic status of patients with cirrhosis of liver Sample comprised of 126 patients, those who were with normal sensorium, able to communicate, diagnosed with cirrhosis of liver and admitted in hospitals of Udupi taluk with 50 bed strength and above. Hence a purposive sampling technique was used for the study. Pilot study finding was used to calculate the required sample size and the following formula was used to compute the sample size.

$$n = \frac{(z/\alpha/2)^2 (\sigma)^2}{E^2}$$

Z/α/2=Constant at 5% level of significance (1.96)

σ=standard deviation of pilot study (13.96)

E=Margin of error 2.5

Calculated sample size was 120, and 126 samples were included for the study.

Objectives of the study were; to assess the QOL of the patients with cirrhosis of liver as measured by WHO QOL BREF questionnaire (r=0.83), identify the emotional wellbeing of the patients with cirrhosis of liver as measured by self-reported emotional wellbeing questionnaire (α=0.58), determine the functional status of the patient with cirrhosis of liver as measured by using Modified Barthel Index (r=0.78),explore the socioeconomic status of the patient with cirrhosis

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of liver as measured by modified Kuppuswamy's modified socio-economic status scale 2012 version, identify family supports of the patients with cirrhosis of liver as measured by family supports scale (α=0.74). Regarding ethical perspective; administrative permission from the randomly selected hospitals with 100 bed strength and above in Udupi taluk, IEC permission (IEC569/2013), written consent was obtained from the participant and also anonymity was maintained.

Results

Majority 97.6%(123) of the samples were male. Most 53(42.1%) of them belong to the group of 51-60 years. Out of 126 samples 43(34.1%) were having the secondary education. Majority 114(90.5%) of them were married. Most of the samples were coolie workers and 98(77.8%) were belongs to Hindu religion. Majority 103(81.7%) of the samples belong to nuclear family and 123(97.6%) samples were non-vegetarian. Three patients were admitted 12 times during the course of illness. Majority 69.8%(88) of the samples knew about what they are suffering from and 114(90.5%) samples were having habits of drinking alcohol among them 46(40.5%) had the habit of drinking alcohol every day and 7 samples had the history of intake of 270 ml per day. The following signs and symptom were experienced by the samples with cirrhosis; tremor 89(70.6%) anorexia 67(53.2%) nausea 39(31%) change in bowel habit 23(18.3%) hematemesis 44(34.9%) gastritis 22(17.5%) jaundice 8(6.3%) palmar erythema 28(22.2%) and peripheral edema 42(33.3%).

Quality of life of patients with cirrhosis of liver

The qualities of life of cirrhosis of liver patients were assessed using WHOQOL BRIEF 26. It had four domains and two items that described the overall QOL of cirrhosis of liver patient's life. The first item explained the individual's overall perception of quality of life and item number two explained the individual's over all perception of health. The four domains included were physical, psychological, social, and environmental, obtained score denoted individual's perception of quality of life in each particular domain. The mean score of each domain was used to calculate the each domain score. Obtained row score were converted to transform score as per the norm suggested by WHO. Data presented in the Table 1 denotes most (42.1%) of patients rated their QOL as neither poor nor good. A further detail of satisfaction with health of cirrhosis of liver patient is described in Table 2.

Table 1 Frequency and Percentage of quality of life

S. no	Item	Frequency	%
1	How do you rate your quality of life?		
2	Very poor		
3	Poor	23	18.3
4	Neither poor nor good	53	42.1
5	Good	43	34.1
6	Very good	07	05.6

n = 126

Table 2 Frequency and percentage of satisfaction with own health of patient's with cirrhosis of liver

S. No	Item	Frequency	%
1	How satisfied are you with your health		
2	Dissatisfied	29	23
3	Neither dissatisfied nor satisfied	68	54
4	Satisfied	29	23

n = 126

Data presented on the Table 2 denotes majority of patients (54%) were neither dissatisfied nor satisfied with their own health and also none of them were very satisfied or very dissatisfied with their own health. Further details of domain wise distribution of quality of life of cirrhosis of liver patient is explained in Table 3. Data in Table 3 indicates that patients with cirrhosis of liver have higher quality of life in social domain (score 81). Low quality of life on environmental domain (score 48)

Table 3 Domain wise median, SD, minimum and maximum score of quality of life of cirrhosis of liver patient

S. No	Domain	Median	Transformed score	SD	Minimum score	Maximum score
1	Physical	24	61	2.36	19	29
2	Psychological	20	57	1.73	17	23
3	Social	13	18	.82	11	14
4	Environmental	24	48	2.25	21	28

(n=126)

Emotional wellbeing of patients with cirrhosis of liver

The emotional wellbeing score were categorized in to emotionally stable (68-110) and emotionally unstable (0-67). Frequency and percentage distribution of emotional wellbeing of cirrhosis of liver patients were computed.

Data presented in the Table 4 denotes that 52.4% of the patients with cirrhosis were emotionally stable, remaining 47.6% were emotionally unstable.

Table 4 Frequency and percentage distribution of emotional wellbeing of cirrhosis of liver patient

S. No	Emotional wellbeing	Frequency	%
1	Emotionally unstable	60	47.6
2	Emotionally stable	66	52.4

(n=126)

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Functional status

Functional status of patients with cirrhosis was assessed using Modified Barthel Index. The score were classified in to total dependence (0-20) severe dependence (21-60) moderate dependence (61-90) slight dependence (91-99) independence (100). The Table 5 shows that most of the patients 45(35.7%) were in the category of moderate dependence status and only 19.8% of patients were independent.

Table 5 Frequency and percentage distribution of functional status of cirrhosis

S. No	Functional status	Frequency	%
1	Total dependence	17	13.5
2	Moderate dependence	45	35.7
3	Slight dependence	39	31.0
4	Independence	25	19.8

(n=126)

Socioeconomic status

Socioeconomic statuses of the patients were assessed by Kuppuswamy's modified socioeconomic status scale. The data classified as per the tool (26-29) Upper, (16-25) Upper Middle, (11-15) Middle/Lower middle, (5-10) Lower/Upper lower,<5 Lower. The data on the Table 6 shows that the majority of the patients were from middle lower classes 66(52.4%) and least number of patients were from upper middle 22(17.5%).

Table 6 Frequency and percentage distribution of socioeconomic status of cirrhosis of liver patients

S. No	Socioeconomic Status	Frequency	%
1	Upper lower	38	30.2
2	Middle lower	66	52.4
3	Upper middle	22	17.5

(n=126)

Family support

Family support of the patients was assessed by family support scale. Family support was arbitrarily classified in to three categories based on attained score. Good (45-48) moderate (40-44) poor (36-49). Data in the Table 7 shows that the majority of the patients had poor family supports 36.5%(46) and 35.7% were enjoying good family support.

Table 7 Frequency and percentage distribution of family supports of cirrhosis of liver patients

Family Support	f	%
Poor	46	36.5
Moderate	35	27.8
Good	45	35.7

(n=126)

Relationship between QOL and emotional wellbeing

To find the relationship between quality of life and emotional wellbeing functional status, socioeconomic status, and family supports the normality of data were tested using Shapiro-Wilk test. As the data were not normally distributed, non-parametric test Spearman's Rho was computed. The following Table 8, represents Spearman Rho computed quality of life and other variable such as emotional wellbeing, functional status, socioeconomic status, and family supports.

Table 8 Relationship between QOL and emotional wellbeing, functional status, socioeconomic status, and family supports

Variable	Emotional	Functional	Socioeconomic	Family
QOL	0.920**	0.101	0.275**	0.444
p- value	0.000	0.261	0.002	0.000

(n-126), (** significant at the level of 0.05).

Relationship between QOL and emotional well being

The data in the Table 8 shows that there was a highly positive correlation between emotional wellbeing and quality of life. (ρ=0.920 p<0.001). The findings signify that there was a significant positive relationship between quality of life and emotional wellbeing. Whereas there was no relationship found between cirrhosis and quality of life and functional status. (ρ=0.26 1) (p=0.101). A weak positive correlation were found between quality of life and family support (ρ=0.444) (p=0.00). Positive weak relationship were found between quality of life and socioeconomic status (ρ=0.275) (p=0.02). Thus it can be interpreted that quality of life of patients with cirrhosis liver was interdependent of emotional wellbeing, family support and socioeconomic status, where as it was independent of functional status and also it was influenced by social domain and environmental domain.

Discussion

Majority of samples with cirrhosis of liver, 42.1%(53) experienced neither poor nor good quality of life, and 54%(68) of the people were neither dissatisfied nor satisfied with their own heath. Among the QOL domain social domain was scored highest among all the domains of quality of life with the score of 81 and environmental domain was scored least (48). Present study findings were contradicted with study findings of the Parkash et al.[3] conducted a study to assess the health related QOL and factors affecting QOL among 155 males and 118 female patients who were suffering from chronic liver disease at Karachi in 2012. Using a QOL on chronic liver disease. The study revealed that fatigue domain had incomparably decreased mean score of 4.36 when compared to other domain. Major portion of the patients had poor (<5) score suggesting that patient with chronic liver disease have poor QOL.[3]

Emotional wellbeing patients with cirrhosis of liver

Majority 52.4%(66) of the samples with cirrhosis were emotionally stable and 47.6% (60) were emotionally unstable and there was a perfect positive relationship between QOL and emotional wellbeing found with the p value of <0.001. Qiao et al.[4] conducted a survey to evaluate the health-related quality of life among patients with hepatocellular carcinoma by TNM classification using functional assessment of cancer therapy-hepatobiliary questionnaire in China between June 2008 and April 2009.The study was conducted among 140 samples, out of which 96.5% patients were diagnosed as cirrhosis of liver. The result shows that there was a reduction in score of QOL significantly from TNM Stage I to Stage III A. Physical and emotional

wellbeing scores gradually decreased from Stage I (P=0.002) to Stage III A (P=0.033). Physical and emotional wellbeing were the most affected areas among patients with hepatocellular carcinoma.[4]

Functional status of patients with cirrhosis of liver

Majorities (35.7%) of patients were belonging to moderate dependency status and total dependence among the samples was 13.5%. There was no relationship found between cirrhosis and quality of life (ρ=0.261) (p=0.101). These findings were supported by a case control study conducted by Parikh Patel et al.[5] on activities of daily living of people having primary biliary cirrhosis at California in 2006 among 126 cases and 141 controls. The results revealed that there was significant reduction in activities of daily living of cirrhosis clients than the controls with the value of<0.001.[5]

Socioeconomic status of patients with cirrhosis of liver

Majority (52.4%) of patients were belongs to middle lower class family income group, 30.2% of the samples were belong to upper lower class income group, and 15.7% were belong to upper middle class family income group. There was a positive weak relationship was found between quality of life and socioeconomic status. This findings were supported by the study conducted by Parkash et al.[3] alto evaluate the health related QOL and factors affecting QOL in subjects with chronic liver disease at Karachi in 2012. Sample consisted of 155 males and 118 females. Results found that chronic liver disease was more in middle income patients (54%) than in high income patients (11 %).[3]

Family support of patients with cirrhosis of liver

Majority of patients (36.5%) were not enjoying the family support and there was a weak positive correlation were found between quality of life and family support. These findings were supported by the study conducted by Han in Korea on 2001 to identify the causes affecting the QOL among 1,748 subjects who were suffering from chronic illness using Ro's scale on QOL. The result showed that chronically ill patients were moderately satisfied with their QOL and a high

mean score of 3.34 was scored in family support and least in physical activity (2.92). It concludes with the message that family support is the key area of QOL among chronically ill patients.[6]

Conclusion

Patients with cirrhosis of liver experienced neither good nor poor quality of life. They were neither satisfied nor dissatisfied with their health status. Emotional wellbeing and family support considerably contributed to their quality of life and also quality of life was influenced by social and environmental factors too.

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Conflict of interest

The author declares no conflict of interest.

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