



Psychological Distress And Health-Related Quality Of Life Among Patients With Chronic Liver Diseases

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ABSTRACT

The present study assessed psychological distress and health-related quality of life among patients with Chronic Liver Diseases. The objective of the study was to assess psychological distress and health-related quality of life among patients with CLD. The conceptual framework of the study is based on Roy's Adaptation Model. A non-experimental descriptive survey design was used for the study. 100 patients attending the liver clinic of KIMS hospital, TVM, who satisfied the inclusion criteria, were selected by consecutive sampling. A Structured Interview schedule was used to collect data regarding socio-personal variables and clinical variables. Psychological distress was assessed by the Hospital Anxiety and Depression Scale (HADS) and Health-Related Quality of Life (HRQoL) by the Chronic Liver Disease Questionnaire (CLDQ). After data collection, individualised teaching on measures to improve quality of life and to decrease psychological distress was given with an information pamphlet. Data were analysed using descriptive and inferential statistics. The findings show that 20 % had abnormal anxiety and 25% had borderline abnormal anxiety. 6 % had abnormal depression, and 37% had borderline abnormal depression. 64% of patients had good overall HRQoL, whereas 75% had poor HRQoL in the domain of activity; 71% had poor HRQoL in the fatigue domain; 42% had poor HRQoL in emotional function. The study's r value shows a statistically significant negative correlation ($p < 0.05$, $p < 0.01$) between psychological distress and HRQoL in various domains except for abdominal symptoms and systemic symptoms. There is a statistically significant association between anxiety and with severity of illness, complications, and depression with the severity of illness. There is also a statistically significant association between HRQoL with age, severity of illness. duration of disease, and complications in various domains. The study findings concluded that low-level psychological distress enables patients with CLD to maintain a higher HRQoL

Background of the problem

Chronic Liver Diseases are the progressive destruction and regeneration of the liver parenchyma leading to fibrosis and cirrhosis (normally lasts 6 months). The etiologic agents of CLDs include hepatotropic viruses (HBV and HCV), fatty liver, alcohol, and autoimmune hepatitis.¹ Liver disease accounts for approximately 2 million deaths per year worldwide. Cirrhosis is currently the 11th most common cause of death globally and is within the top 20 causes of disability-adjusted life years and years of life lost, accounting for 1.6% and 2.1% of the worldwide burden. About 2 billion people consume alcohol worldwide and upwards of 75 million are diagnosed with alcohol-use disorders. Approximately 2 billion adults are obese or overweight and over 400 million have diabetes; both of which are risk factors for non-alcoholic fatty liver disease (NAFLD). The global prevalence of viral hepatitis remains high, while drug-induced liver injury continues to increase as a major cause of acute hepatitis. Given the population burden, India accounts for one-fifth (18.3%) and China accounts for 11% of all cirrhosis deaths globally.² According to the Global Burden of Disease Study of 2010, 1.75 million deaths were attributable to CLD. There is a large degree of geographic variation in the burden of CLD, depending on the prevalence of causative factors such as viral hepatitis infection, alcohol consumption, diabetes, and metabolic syndrome. In general, Hepatitis B virus (HBV) infection tends to have a large burden in resource-limited countries and NAFLD is more common in established economies. In contrast, Hepatitis C virus (HCV) infection and alcohol use are prevalent throughout.³

Need and significance of the study.

A study on depression, anxiety, and illness symptoms according to severity classification of liver cirrhosis patients among 110 patients in South Korea reported that the mean depression was 15.11, and the anxiety was 11.46. Patients with Child-Pugh class A had lower levels of depression and symptom experience than those with Child-Pugh class B and C.⁴ A study done on symptom prevalence and clustering of symptoms in 188 people living with Chronic Hepatitis C infection in Australia reported poor quality of life. The most prevalent symptom was physical tiredness (86%) followed by irritability (75%), depression (70%), mental tiredness (70%), and abdominal pain (68%).⁵ A study was conducted to assess the disease-specific health-related quality of life and its determinants in liver cirrhosis patients in Lithuania. The study included 131 patients with liver cirrhosis in the case group and 262 persons in the control group. The study reported a significant difference in Quality of Life (QoL) between case and control groups in domains of worry (56.0 ± 24.2 vs 88.6 ± 14.4 , $p < 0.001$) and abdominal symptoms (59.7 ± 25.8 vs 88.9 ± 14.2 , $p < 0.001$) and a smaller difference in emotional functions (58.5 ± 20.9 vs 78.9 ± 16.1 , $p < 0.001$) and systemic symptom domains (68.8 ± 18.1 vs 90.0 ± 10.9 , $p < 0.001$). The overall CLDQ score for liver cirrhosis patients was also lower than in persons with no cirrhosis (59.5 ± 18.3 vs 85.3 ± 12.3 , $p < 0.001$). The findings showed a significant worsening of QOL in parallel with the increase of the clinical severity of disease measured by the Child-Pugh scale in A and C classes respectively 65.9 ± 18.6 and 52.6 ± 17.0 ($p < 0.01$).⁶ A case-control study was conducted to evaluate determinants of health-related quality of life among 255 patients with Chronic Liver Diseases in Germany. The study result showed that the cause of liver disease, severity of disease (cirrhosis vs. no cirrhosis, Child-Pugh score), sex, age, and social class did not affect HRQOL. Anxiety and depression scores greater

than 11 on the HAD scale indicating a probable psychiatric disorder, contributed independently to the impaired HRQoL in the total score of the CLDQ ($p < 0.0001$). Several active medical comorbidities contributed independently to the reduced HRQoL in the total score of the CLDQ ($p < 0.0001$).⁷

Statement of the problem

A descriptive study to assess psychological distress and health-related quality of life among patients with Chronic Liver Diseases in a selected tertiary care hospital, Thiruvananthapuram.

Objectives

1. Assess psychological distress among patients with Chronic Liver Diseases.
2. Assess the health-related quality of life among patients with Chronic Liver Diseases
3. Find the relationship between health-related quality of life and psychological distress among patients with CLD.
4. Find the association between psychological distress among patients with Chronic Liver Diseases and selected socio-personal and clinical variables.
5. Find the association between health-related quality of life among patients with Chronic Liver Diseases and selected socio-personal and clinical variables.

Hypotheses

H₁: There is a significant relationship between psychological distress and health-related quality of life among patients with CLD.

H₂: There is a significant association between the psychological distress of patients with CLD and selected socio-personal variables such as age, gender, religion, and education and clinical variables such as etiology of disease, severity of illness, duration of disease, and complications.

H₃: There is a significant association between the health-related quality of life of patients with CLD and selected socio-personal variables such as age, gender, religion, and education and clinical variables such as etiology of disease, severity of illness, duration of disease, and complications.

Methodology

Research approach

Quantitative approach

Research Design

Nonexperimental descriptive survey design

The setting of the study

Liver Clinic of KIMS Hospital, Thiruvananthapuram.

Population

Patients with Chronic Liver Diseases within the age group of 35-75 years.

Sample and Sample size

Patients with chronic liver diseases within the age group of 35-75 years attend the liver clinic at KIMS Hospital Thiruvananthapuram. The sample consisted of 100 patients with CLD.

Sampling technique

Consecutive sampling technique.

Criteria for sample selection

Inclusion criteria

- Patients who are diagnosed with CLD.
- Patients who can read and understand English or Malayalam.

Exclusion criteria

- Patients with hepatocellular carcinoma.
- Patients with hepatic encephalopathy grade 3 and 4.

Description of tools

TOOL 1: Interview schedule -To collect socio-personal and clinical data

TOOL 2- Child-Pugh score to assess the severity of liver disease.

TOOL 3- The Hospital Anxiety and Depression Scale (HAD scale)

TOOL 4- The CLD Questionnaire (CLDQ)

Data analysis

Section 1: Psychological distress among patients with CLD measured using the HADS scale.

Variable	f	%
Anxiety		
Normal	55	55
Borderline abnormal	25	25
Abnormal	20	20

Depression

Normal	57	57
Borderline abnormal	37	37
Abnormal	6	6

Section 2: Distribution of patients with CLD based on HRQoL measured by CLD Questionnaire.

Domains of HRQoL	HRQoL			
	Poor		Good	
	f	%	f	%
Abdominal symptoms	25	25	75	75
Fatigue	71	71	29	29
Systemic symptoms	16	16	84	84
Activity	75	75	25	25
Emotional function	42	42	58	58
Worry	41	41	59	59
Overall HRQoL	36	36	64	64

Section 3: Relationship between psychological distress and HRQoL among patients with CLD.

Domains of HRQoL	r value	
	Anxiety	Depression
Abdominal symptoms	-0.158	-0.153
Fatigue	-0.338**	-0.326**
Systemic symptoms	-0.049	-0.049
Activity	-0.219*	-0.217*
Emotional function	-0.637**	-0.515**
Worry	-0.633**	-0.465*
Total HRQoL	-0.507**	-0.429**

Section 4: Association of psychological distress with socio-personal and clinical variables among patients with CLD

There is statistically no significant association between psychological distress anxiety and age, gender, religion, education, smoking, alcoholism, duration of disease, and etiology of disease ($p>0.05$). Also, there is statistically no significant association between psychological distress-depression and age and gender, religion, education, duration of illness, etiology of illness, and complications ($p>0.05$)

Clinical variable	Anxiety						df	χ^2
	Normal		Borderline		Abnormal			
	F	%	f	%	f	%		
Severity of illness								
Class A	38	65.5	12	20.7	8	13.8	4	10.97*
Class B	13	37.1	13	37.1	9	25.8		
Class C	4	57.1	0	0	3	42.9		
Complications	Normal		Borderline		Abnormal			
	F	%	f	%	f	%		
PHTN only	14	60.9	5	21.70	4	17.40	30	44.49*
PHTN and Ascites	1	16.7	3	50.00	2	33.30		
PHTN and Esophageal varices	21	67.7	7	22.60	3	9.70		
PHTN and Hepatic Encephalopathy	3	60	0	0.00	2	40.00		
PHTN and SBP	1	100	0	0.00	0	0.00		
PHTN and Hepatorenal syndrome	0	0	1	100.00	0	0.00		
PHTN, Esophageal varices, and Ascites	6	60	0	0.00	4	40.00		
PHTN, Ascites, and SBP	0	0	0	0.00	1	100.00		

PHTN, HE, and Esophageal varices	2	33.3	3	50.00	1	16.70
PHTN, EV, Ascites, and HE	2	66.7	0	0.00	1	33.30
PHTN, EV, Ascites, SBP, HE	1	100	0	0.00	0	0.00
PHTN, EV, HE, Ascites, HRS	0	0	1	100.00	0	0.00
PHTN,EV,Ascites, SBP	1	100	0	0.00	0	0.00
PHTN, EV, Ascites,HRS	0	0	0	0.00	2	100.00
PHTN, Ascites,HE, SBP	0	0	1	100.00	0	0.00
No complications	3	42.9	4	57.10	0	0.00
Depression						
Clinical variable	Normal	Borderline		Abnormal	df	χ^2
	f	%	f	%	f	%
Severity of illness						
Class A	40	69	17	29.3	1	1.7
Class B	15	42.9	17	48.6	3	8.6
Class C	2	28.6	3	42.9	2	28.6

Section 5: Association of HRQoL with socio-personal and clinical variables among patients with CLD

Socio-personal variable	HRQOL domains													
	Abdominal symptoms		Fatigue		Systemic symptoms		Activity		Emotional function		Worry		Overall HRQOL	
	df	χ^2	df	χ^2	df	χ^2	df	χ^2	df	χ^2	df	χ^2	df	χ^2
Age	3	3.52	3	1.40	3	5.28	3	0.77	3	7.42	3	15.67**	3	4.76
Gender	1	0.26	1	2.33	1	0.01	1	0.00	1	1.92	1	0.16	1	0.44
Religion	2	1.77	2	1.05	2	3.42	2	0.40	2	0.53	2	0.09	2	0.03
Education	4	4.25	4	0.67	4	2.28	4	4.08	4	1.95	4	7.46	4	2.40
Smoking	1	0.07	1	0.05	1	0.92	1	1.73	1	0.18	1	1.18	1	1.57
Alcoholism	1	2.30	1	0.43	1	0.38	1	0.67	1	0.15	1	1.92	1	0.41
**-Significant at 0.01 level														
Clinical variable	HRQOL domains													
	Abdominal symptoms		Fatigue		Systemic symptoms		Activity		Emotional function		Worry		Overall HRQoL	
	df	χ^2	df	χ^2	df	χ^2	df	χ^2	df	χ^2	df	χ^2	df	χ^2
Duration of disease	1	2.86	1	1.97	1	2.71	1	3.81*	1	1.14	1	3.47	1	2.37
Etiology of disease	5	4.31	5	7.28	5	2.36	5	9.26	5	1.4	5	7.55	5	1.91
Severity of illness	2	6.49*	2	5.37	2	7.33*	2	9.35*	2	6.82*	2	1.03	2	14.56*
Complications	15	36.9**	15	17.11	15	26.82*	15	18.08	15	15.9	15	11.7	15	24.07

Implications of the Study

Nursing Practice

A structured teaching program on different aspects to be adopted to reduce psychological distress and to improve health-related quality of life (Etiology and symptoms of illness, alcohol consumption, rest, prevention of infection, use of medications, management of co-morbidities, stress reduction, prevention of complication, liver cancer and liver transplant) can be used as a powerful tool to impart knowledge. Nurses should have up-to-date knowledge regarding various aspects of Chronic Liver Diseases which make them well-equipped to meet the needs of the clients. Nurses need to arrange and conduct workshops and seminars on measures to reduce psychological distress and improve health-related quality of life. Continuing and in-service education programs need to be conducted regularly for nurses to update them with the recent advances they in turn motivate patients with Chronic Liver Diseases to modify their lifestyles and prevent further complications thereby improving the quality of life.

Nursing Education

Student nurses can conduct health education sessions in the community setting regarding various aspects of Chronic Liver Diseases and measures to improve quality of life. Nursing students should be motivated to provide incidental and planned teaching programs to decrease psychological stress among patients with CLD.

Nursing Administration

Nursing administrators have to organize workshops/ seminars and education programs for nurses focusing on various measures to improve health-related quality of life and decrease psychological distress in patients with Chronic Liver Diseases. Nurse leaders in collaboration with mass media can deliver health education sessions regarding various measures to improve health-related quality of life and decrease psychological distress in patients with Chronic Liver Diseases.

Nursing Research

There is a need for extensive research in this area so that strategies for educating nurses and the public regarding various measures to improve health-related quality of life. Nurse researchers should disseminate the research findings through magazines, journals, seminars, and symposiums. Research findings should be communicated to nurse practitioners to incorporate the evidence in the clinical practice as evidence-based nursing practice.

Conclusion

Health-related quality of life is significantly impaired in patients with Chronic Liver Diseases. The findings of the present study show that among the patients with CLD, 20 % had abnormal anxiety and 25% had borderline abnormal anxiety. 6 % had abnormal depression and 37% had borderline abnormal depression. Out of the samples, 64% of patients had good overall HRQoL; whereas poor HRQoL is noted in the domains of activity and fatigue. There is a statistically significant negative correlation between psychological distress and HRQoL in various domains except abdominal symptoms and systemic symptoms. There is a statistically significant association between anxiety with the severity of illness and complications and depression with the severity of illness. Also, there is a statistically significant association between HRQoL with age, severity of illness, duration of disease, and complications in various domains. The study findings concluded that low levels of psychological distress will enable patients with CLD to maintain a higher health-related quality of life. The findings highlight the need for intensive medical and nursing care vigilance to diagnose and manage psychological distress at the earliest which will in turn improve health-related quality of life of patients with CLD.

Limitations

- The study was confined to patients with Chronic Liver Diseases within the age group of 35-75 years attending Liver Clinic, KIMS hospital, Trivandrum.
- The study was confined to 100 samples only, so it is difficult to draw generalizations

Recommendations

- A community-based study can be done to assess psychological distress and health-related quality of life among patients with Chronic Liver Diseases.
- A follow-up study can be conducted among the same patients to evaluate the measures adopted to improve quality of Life.
- A structured teaching program may be made available in all NCD clinics to make the public aware of the risk factors of CLD.
- The study can be replicated on a large sample in a different setting.

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