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**ORIGINAL ARTICLE**

# Quality of Life Score in Patients with Chronic Liver Disease using CLO Questionnaire

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## ABSTRACT

**Aim:** To determine the quality of life score in patients with chronic liver disease using CLO questionnaire.
**Study Design:** Cross sectional study
**Place and Duration:** Department of Gastroenterology, Shaikh Zayed Hospital Lahore during from 14-June-2016to 15-December-2016.
**Methodology:** 180 consecutive patients of chronic liver disease were selected after taking Informed consent. The diagnosis was confirmed according to the data of clinical, biochemical examinations and the results of percutaneous liver biopsy data in some selected cases. All patients were subjected to exam, LFT's, RFT's and CBC, ultrasound abdomen, esophagogastroscopy which were enrolled in this study. Anti HCV, HBsAg, ferritin, Cerruloplasmin and Autoimmune profile, was done to establish the etiology. Severity of liver disease was estimated by Child-Pugh Score (Annexed). The chronic liver disease questionnaire (CLDQ) was applied as the instrument for measuring quality of life.
**Results:** The mean age of the patients was 35.28±7.26 years. Majority of the patients were male as there frequency was 142 (78.9%). 127 (70.60 %) cases were found to be having a child pugh grade c severity of disease. Mean quality of life score was 16.3±5.88. Mean quality of life score in males was 16.21±6.21 while in female was 16.63±4.48. Similarly the mean quality of life score in child pugh class B was 13.77±4.58 and in child pugh class C was 17.35±6.05.
**Conclusion:** It is concluded that the quality of life was bad in the patients who had child pugh class C as compared to those who had class B.
**Keywords:** Quality of Life, Chronic Liver Disease, Cirrhosis

## INTRODUCTION

The most common cause of mortality in the United States was cirrhosis and chronic liver failure. With 27,257 fatalities (9.5 deaths per 100,000 people) in 2002, a minor male predominance [1] can be observed. On average, 3.6-18.66 percent of Pakistan's population has liver cirrhosis, whereas 4.27-4.33 percent of those with liver cancer have it.

Cirrhosis affects 40 percent of individuals, many of whom have no symptoms and are only diagnosed by normal laboratory or radiographic examinations or through autopsy [1].

QOL (quality of life) is a choice-based measure of the individual's value or preference for a certain condition of health. Health-related quality of life (QOL) deficits, including as weariness, muscle and joint pain, depression, and other psychiatric illnesses, may also be associated with HCV infection, even in the early stages of disease. The Short-Form 36 (SF-36) is a non-preference-based questionnaire commonly used in research looking at the impact of HCV on quality of life (QOL) [2].

An assessment of quality of life in relation to anxiety could not be made. There was no correlation between worsening on the CLDQ and changes in PT or albumin levels. There was no link discovered between low CLDQ scores and high ALT levels previously, according to Younossi et al. Chronic hepatitis C patients, even those who are not cirrhotic, have significantly lower scores across the board as compared to chronic hepatitis B virus patients, who only demonstrate a decline in mental function scores [6]. As a result, chronic HCV infection's symptoms are distinct from those associated with chronic HBV infection.

The mean quality of life score, which can be used to determine a specific cutoff value for determining good health, has been the subject of only a few research. Chronic liver disease patients had an average quality of life score of 89.530.4 in a study of 109 patients. Emotional function was 24.4–8.2, worry was 17.4–4.4, systemic symptoms were 15.9–6.1, weariness was 14.4–5.9, stomach symptoms were 9.1–3.5, and activity was 8.4–3.9.3 on the QOL scale. Aside from the mean quality of life (QOL) score, this study also analysed the scores of other factors that contribute to quality of life. The QOL mean score (SD) of cirrhotic patients was shown in a different study to be significantly lower in all six of the previously described domains. Worry (56.0 24.2), stomach symptoms (59.7 25), emotional function (58.5 20.9), and systemic symptoms (68.8 18.1) were all found to be significant. Patients with liver cirrhosis had an overall CLDQ score of 59.518.3 [5].

It is the goal of the study to discover how chronic liver disease affects a patient's quality of life. The quality of life

index score for Pakistanis and the rest of the world is significantly different [6-7]. The average CLDQ score during the last five years in Pakistan was only found in this study [8], which was conducted in Pakistan. As a result, I designed this study to see if patients with liver cirrhosis have quality of life that is compromised to such an extreme degree that doctors will be able to focus on psychological management in addition to pharmaceutical management. If this is the case, doctors will be able to focus on both psychological and pharmaceutical management.

## MATERIALS AND METHODS

In this cross-sectional study, which took place in the Department of Gastroenterology at the Shaikh Zayed Hospital in Lahore between June 14, 2016 and December 15, 2016, we found that It was decided to enrol 180 kids from either gender who had chronic liver disease and were classified as child pugh classes B and C in this research. Those who were treated were between the ages of 18 and 50 years old.

In certain cases, the diagnosis was confirmed based on the results of clinical and biochemical investigations, as well as the results of percutaneous liver biopsy procedures performed on the patients. All patients who were enrolled in this study were submitted to physical examination, laboratory tests (LFTs, RFTs, and CBC), ultrasonography abdomen, and esophagogastroscopy. Anti-HCV, anti-HBsAg, ferritin, Cerruloplasmin, and an autoimmunity profile were performed in order to determine the aetiology. The Child-Pugh Score was used to determine the severity of liver disease (Annexed). The chronic liver disease questionnaire (CLDQ) was used as the instrument for assessing quality of life in patients with chronic liver disease.

The information was entered and then assessed. In SPSS version 18, this is the case. The mean and standard deviation were used to depict quantitative data such as age and mean quality of life score, as well as sub domain scores. Gender, for example, was expressed as a percentage and as a frequency of occurrence. The data was divided into three groups based on the severity of the condition, gender, and age. After stratification, the students' t-test was performed to control for effect modifiers, such as age, and a p-value of less than 0.05 was judged statistically significant.

## RESULTS

There were total 180 cases of chronic liver disease who were enrolled in this study. The mean age of the patients was 35.28±7.26 years. Majority of the patients were male as there frequency was 142 (78.9%) and female patients were 38 (21.1%). [Figure 1]

127 (70.6%) cases were found to be having a child pugh grade C severity of disease while 53 (29.4%) were in child pugh grade B. (Figure 2)

Mean quality of life score was 16.3±5.88. There was no significant difference with respect to age and gender as mentioned in table 1 and 2.

The mean quality of score was 13.77±4.58 in grade B disease severity and 17.35±6.05 in grade C disease severity with a p-value of 0.001. (Table 3)

Figure 1: Gender-wise distribution

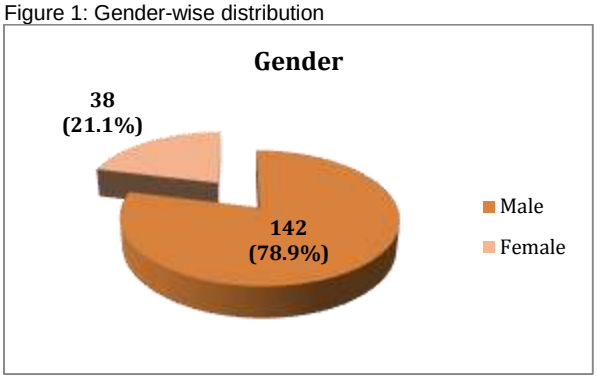


Figure 2: Disease severity according to child pugh class

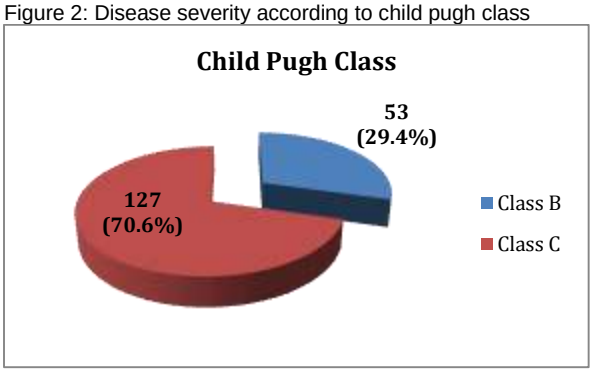


Table No 1: Stratification with respect to age

| Variable | Groups of Age | Mean | Std. | P-value |
|---|---|---|---|---|
| Quality of Life Score | | | | 0.177 |
| | 18 to 35 years | 16.88 | 6.7675 | |
| | Above 35 years | 15.693 | 4.7473 | |

Table No 2: Stratification with respect to gender

| Variable | Gender | Mean | Std. | P-value |
|---|---|---|---|---|
| Quality of Life Score | | | | 0.697 |
| | Male | 16.211 | 6.2135 | |
| | Female | 16.632 | 4.4807 | |

Table No 3: Stratification with respect to Disease Severity

| Variable | Severity | Mean | Std. | P-value |
|---|---|---|---|---|
| Quality of Life Score | | | | 0.001 |
| | Child pugh B | 13.774 | 4.5895 | |
| | Child pugh C | 17.354 | 6.0534 | |

## DISCUSSION

Hepatitis C virus (HCV) infection is the leading cause of liver disease and death in the world, with an estimated 300 million people affected worldwide (9-10). The condition progresses over time and has a long-term effect.

The physical component of chronic viral liver disease is very detrimental to one's well-being. The treatment of chronic HCV infection may have a short-term impact on HRQOL, and common side effects include fatigue, muscle pains, depression, and cognitive deficiencies. ' (11-12). Addiction to alcohol and narcotics, as well as having been diagnosed with hepatitis C, can all have a negative impact on the healing process. HCV colonisation of brain microglia

and activation of brain Interleukins may even organically mediate aspects of HRQOL related to mood. There are further physical symptoms that may be specific to HCV pathophysiology that affect HRQOL. Several studies show that with chronic liver illness with established liver cirrhosis, physical quality of life is worse than mental quality of life (13).

The HRQOL of most people with chronic liver disease is severely impaired (14). People who have viral hepatitis C, primary biliary cirrhosis (PBC), and nonalcoholic fatty liver disease (NAFLD) have higher impairment than those who have other chronic liver diseases. Because of fatigue (both) and depression (both), several recent studies found that individuals with HCV and PBC had considerably lower HRQOL (HCV). Patients with HCV infection have more severe mental health problems than those with PBC (15).

General HRQOL questionnaires and disease-specific HRQOL questionnaires are the two most common forms of HRQOL questionnaires used to assess patients' HRQOL. Utility measurements are a third form of HRQOL questionnaire that can be considered from the standpoint of cost effectiveness.

In this study, we compared the HRQOL of Chinese patients with chronic liver disease to that of Chinese healthy controls using a commonly used general questionnaire, the Chronic Liver Disease Questionnaire (CLDQ). Patients can complete the CLDQ in just a few minutes, and it can be used in underdeveloped nations to supplement clinical data and provide additional information. Human Resources Quality of Life (HRQOL) assessments such as the SF-36 can help to connect the medical and psychological theories of health (16-17).

In addition, we discovered that as the severity of chronic liver disease worsened, so did HRQOL. Furthermore, the influence on HRQOL was significant, regardless of the kind of chronic liver illness; this impact did not differ significantly by disease type or severity; the worse the disease was, the lower the HRQOL, particularly in the physical component (18-21).

In our research, the age of our patients had no effect on their QOL; nevertheless, individuals above the age of 50 were found to have decreased physical and social functioning ($p>0.05$). According to the studies, the quality of life is not affected by one's age (22-23).

The results of this study cannot be extended to a large population because of the limited sample size. The prevalence of chronic liver disease in residents of third-world countries necessitates a larger investigation in order to examine the results on a broader scale.

## CONCLUSION

It has been observed that people with chronic liver disease have a lower quality of life than the general population. In the case of individuals with chronic advanced liver disease, the introduction of comprehensive care programmes may be able to assist lessen the impact that the condition has on their overall quality of life.

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