

# Quality of Life of the Patients Suffering from Chronic Liver Diseases at the University Health Center Campus of Lome

Aklesso Bagny<sup>1</sup>, Oumboma Bouglouga<sup>1</sup>, Late Mawuli Lawson-Ananissoh<sup>1</sup>, Angelique Dusabe<sup>1</sup>, Yeba Laconism Kaaga<sup>1</sup>, Abago Balaka<sup>2</sup>, Mohaman Awalou Djibril<sup>2</sup>, Datouda Redah<sup>1</sup>

<sup>1</sup>Gastroenterology Department, Faculty of Health Sciences, University of Lom, Lomé, Togo

<sup>2</sup>Internal Medicine Department, Faculty of Health Sciences, University of Lomé, Lomé, Togo

Email: [ybagny@yahoo.fr](mailto:ybagny@yahoo.fr)

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## Abstract

**Objective:** Assess the quality of life (QOL) of the patients suffering from chronic liver diseases in our service. **Patients and Method:** A transversal prospective study conducted at the service of hepatology and gastroenterology at the University health center Campus of Lomé from August 1, 2013 to August 31, 2014. We have used the short form 36 health survey questionnaire (SF-36). Patients of cirrhosis and hepatocellular carcinoma admitted during the said period were selected. Patients suffering from any other chronic diseases such as psychiatric or emotional troubles; linguistic or cognitive deficiencies that could hamper the dependability of the questionnaire were excluded. **Results:** The average age of the patients was  $46 \pm 12$  years old with a male predominance (sex-ratio: 2.9). Our patients were distributed into 47.4% of cirrhosis and 52.6% of CHC. Those chronic liver diseases etiologies were alcoholic (57%), B viral (66%) and C viral (12.3%). The assessment of QOL showed an overall average score of  $76.34 \pm 21.1$ ; a mean score of  $30.4 \pm 86.8$  for the physical dimension and  $36.5 \pm 10.3$  for the mental dimension. Patients with viral liver disease had poorer physical summary score ( $p = 0.000$ ) and poorer mental summary score ( $p = 0.014$ ) compared to alcoholic patients. Alcohol influenced the physical dimension of the patients ( $p = 0.000$ ) while the mental dimension was more affected by the age of patients ( $p = 0.0035$ ). **Conclusion:** The quality of life is altered by the patients suffering from chronic liver diseases ( $p = 0.0035$ ) with regard to our context. This is so in particular with those identified to be viral infected.

## Keywords

Chronic Liver Diseases, Quality of Life, Cirrhosis, Hepatocellular Carcinoma, Togo

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## 1. Introduction

The concept of quality of life related to health (QOL) incorporates many aspects of human experience, such as the overall well-being, social satisfaction and physical functioning [1]. Chronic liver diseases (CLD) such as cirrhosis and hepatocellular carcinoma are the side-effects of a chronic inflammation of liver regardless of the cause. In our context, those chronic liver diseases etiologies are often viral hepatitis B and C as well as alcohol [2] [3]. Those diseases have a remarkable impact on the QOL [4] [5]. The most used tool to diagnose them is the short form 36 health survey questionnaire (SF-36) [6]. The importance of therapeutic progress helps, nowadays to assess not only the benefit of the treatment in terms of life expectancy, but also in terms of physical and psychological satisfaction [7]. Chronic liver diseases such as cirrhosis and hepatocellular carcinoma (HCC) are known to be the most frequent causes of morbidity and mortality in our service [8]. However, no study has ever been dedicated in our context to the quality of life of patients that we handle. Our aim was to assess the QOL of patients with chronic liver disease in our service.

## 2. Method

A transversal prospective study conducted within the gastroenterology department of the University Health center campus of Lomé from 1<sup>st</sup> August 2013, to 31<sup>th</sup> August 2014. Patients of cirrhosis and hepatocellular carcinoma admitted during the said period were selected. All study participants had given their informed consent. We have excluded all other patients suffering from any other kinds of chronic diseases that could have an influence on the QOL. We also excluded patients with psychiatric or emotional disorders or linguistic or cognitive difficulties that could prevent the reliability of the questionnaire.

We have used the short form 36 health survey questionnaire (SF-36) which is a self-questionnaire offering the opportunity to calculate a profile quality of life related to health: physical activity, life and relations with others, bodily pains, perceived health, vitality, weaknesses due to physical state, mental health and the evolution of perceived health. Those 8 scales are distributed into two score dimensions of health: the physical summary score (PSS) and the mental summary score (MSS). The eight health scales are scored on a scale from 0 (lowest level of QOF) to 100 (highest QOF level).

For each patient, the following data were also collected: the epidemiologic parameters (age, gender, level of education), the socio-economic level and the capability to afford the health care expenses.

The statistic analysis of the data has been performed using Sphinx v5 Software; the comparisons have been done using Chi-square test, and  $p < 0.05$  was considered to be significant. Our study was consistent with the principles of the Helsinki declaration of 1975 revised in 1983.

## 3. Results

Out 123 persons to whom the questionnaire was submitted, 114 who are estimated to 92.7% responded and brought back their questionnaire. The average age of the patients was  $46 \pm 12$  years old with a male predominance (sex-ratio: 2.9). Of the sample group, married people represented the majority (85.1%). The distribution of patients according to their education level showed that 21.1% were not in school; 55.3% had a high school; and 15.8% had a university level. More than half of the patients (60.5%) did not have any health insurance. With regard to the diagnostic aspect, our patients were distributed into 47.4% cirrhosis and 52.6% HCC. The etiologies of those chronic liver diseases were alcoholic (57%), hepatitis B virus (66.7%) and hepatitis C virus (12.3%).

The assessment of QOL by SF36 has displayed an overall score of  $76.34 \pm 21.1$ , an average score of the physical dimension of  $30.4 \pm 86.8$  while that of the psychical dimension mounted to  $36.5 \pm 10.3$ . The evaluation of the scores of the domains exploring physical dimensions had given scores of  $92.11 \pm 23.9$  for physical functioning;  $21.9 \pm 83.9$  for the role limitations due to physical health; and assessing the mental dimension had given scores of  $11.6 \pm 32.5$  for the social functioning and  $40.9 \pm 48.1$  for the vitality (Figure 1). Sex, profession, health insurance, the level of education did not influence the physical dimension of QOL of our patients (Table 1). As against patients with viral liver disease had poorer physical summary score ( $p = 0.000$ ) and poorer mental summary score ( $p = 0.014$ ) compared to alcoholic patients. The patients who are 20 to 29 years-old had the best physical functioning score ( $p = 0.0431$ ), patients with HCC have the great bodily pain ( $p = 0.0218$ ) and had the most altered general health ( $p = 0.0203$ ). The assessment of the mental dimension has shown that only age influenced the score of social functioning; The patients who are 20 to 29 years-old have a better score of social

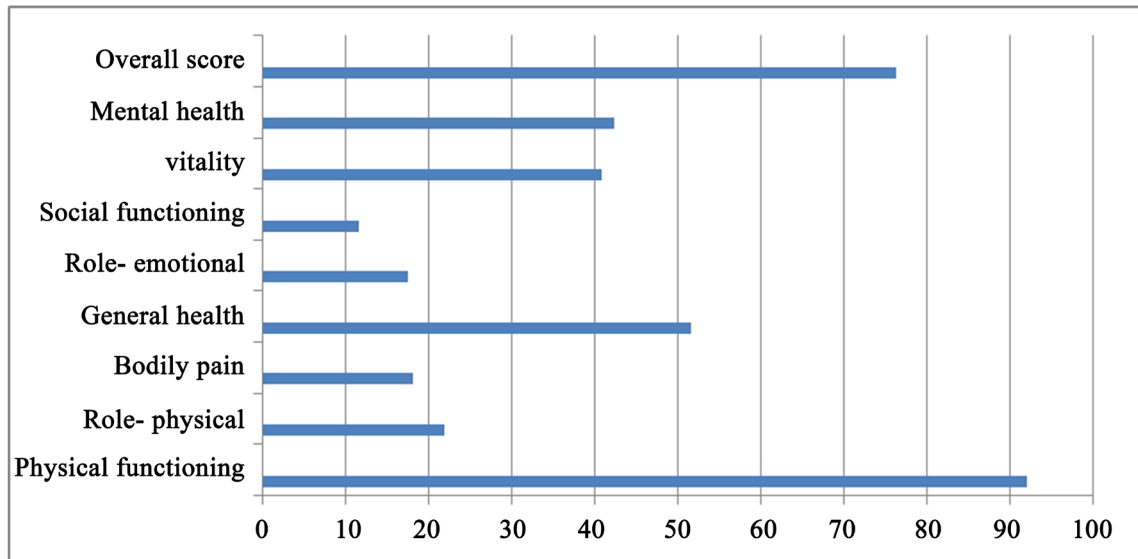


Figure 1. Dimensions of quality of life assessment with the SF-36 score.

Table 1. Physical dimension.

	Physical functioning		Role-physical		Bodily pain		General health	
	Mean score	p	Mean score	p	Mean score	p	Mean score	p
<b>Sex</b>		0.13		0.7269		0.2123		0.3507
Male	111.76		23.53		20.83		55.12	
Female	34.48		17.24		10.34		41.38	
<b>Age</b>		0.0431		0.0709		0.2263		0.1169
20 - 29	280.00		80.00		42.50		102.50	
30 - 39	77.42		3.23		16.94		41.94	
40 - 49	0.00		0.00		7.14		37.50	
50 - 59	102.70		32.43		19.59		53.47	
>60 ans	107.14		28.57		16.07		53.85	
<b>Profession</b>		0.3571		0.2443		0.8041		0.2039
Active	76.06		14.08		18.21		46.07	
Inactive	156.52		47.83		21.74		73.91	
Retirees	75.00		20.00		13.75		44.74	
<b>Insurance</b>		5.74		0.4837		0.7993		0.2025
Insured	86.67		28.89		17.05		41.67	
Uninsured	95.65		17.39		18.84		58.21	
<b>Pathology</b>		0.477		0.9226		0.0218		0.0203
HCC	109.26		22.22		26.85		66.98	
Cirrhosis	76.67		21.67		10.17		37.71	
<b>Study level</b>		0.844		0.7563		0.4712		0.8383
no	77.08		33.33		17.71		59.78	
Primera	55.56		0.00		11.11		38.89	
Secondary	91.27		19.05		22.58		52.42	
University	133.33		27.78		6.94		44.44	
<b>Etiology</b>		0.394		0.5821		0.2357		0.6603
Alcohol	89.23		24.62		17.31		53.97	
HBV	79.61		19.74		16.33		46.28	
HCV	0.00		0.00		0.00		37.50	

**Table 2.** Mentale dimension.

	Mental Health		Role-emotional		Social functioning		Vitality	
	Mean score	p	Mean score	p	Mean score	p	Mean score	p
<b>Sex</b>		0.9161		0.5277		0.4666		0.1969
Male	132.53		20.00		12.94		44.35	
Female	131.90		10.34		7.76		31.03	
<b>Age</b>		0.0796		0.2212		0.0035		0.0641
20 - 29	150.00		60.00		47.50		80.00	
30 - 39	114.52		9.68		7.26		32.26	
40 - 49	115.91		0.00		1.14		30.68	
50 - 59	142.36		21.62		11.49		43.75	
>60 ans	161.54		21.43		12.50		41.07	
<b>Profession</b>		0.2721		0.4142		0.124		0.6736
Active	128.21		12.68		8.45		39.29	
Inactive	127.17		34.78		23.91		48.91	
Retirees	153.95		15.00		8.75		37.50	
<b>Insurance</b>		0.4718		0.7557		0.8483		0.8435
Insured	137.78		20.00		12.22		40.00	
Uninsured	128.73		15.94		11.23		41.54	
<b>Pathology</b>		0.7428		0.6937		0.4012		0.1003
HCC	134.43		14.81		14.35		48.61	
Cirrhosis	130.51		20.00		9.17		33.90	
<b>Study level</b>		0.4631		0.6471		0.8345		0.439
no	114.13		20.83		13.54		39.13	
Primary	136.11		0.00		2.78		30.56	
Secondary	139.11		14.29		12.70		46.83	
University	130.56		33.33		9.72		27.78	
<b>Etiology</b>		0.8407		0.6682		0.5344		0.6888
Alcohol	128.97		16.92		10.38		39.84	
HBV	127.36		15.79		11.84		36.33	
HCV	117.86		0.00		1.79		28.57	

functioning ( $p = 0.0035$ ). The other parameters such as gender, occupation, health insurance, the type of CLD, the level of study or etiology of CLD did not influence the mental dimension (**Table 2**).

#### 4. Discussion

Our study was a prospective study just like those of many other western researchers [9]-[11], we did not come across any African research work that could help us to do pertinent comparisons. This work therefore is a premium of this category that sheds light on the quality of life of patients suffering from CLD in our country. Contrary to the majority of authors [9] [10] [12] who used specific questionnaires adapted to CLD, we have used the SF-36 generic questionnaire which is a non specific questionnaire but which has the merit of being the most commonly utilized for study of the QOL, namely in the case of HIV [13] related chronic hepatitis. Our patients were relatively young compared to those we come across in the European research works [9] [10] where the average ages were respectively 57.26 and 53.8. This could be explained by the fact that the majority (79%) of CLD cases in our context have not only a hepatitis B or C virus origin but also this is due to the fact that the transmission from mother to child is the most frequent case of the HBV and HCV cases in our country; besides these could also be endemic [14]. The assessment of the QOL in our study has demonstrated a decline of all sorts of

scores, thus providing tangible proof of the deterioration of the QOL of our patients. These results are comparable to those of other authors [15] [16] who had demonstrated that there was an impairment of quality of life in patients with chronic liver diseases. In our study QOL was influenced by the age of our patients; impairment of physical functioning were noted ( $p = 0.0431$ ) and the social functioning ( $p = 0.005$ ) of the patients of more than 50 years old. Contrary to our results, the studies [17] [18] have shown that the age does not influence the quality of life. As against the parameters such as gender, occupation and level of education did not influence QOL in our study. Those results are comparable with those found out by other researchers [9] [10] [16], except in the study of Remy *et al.* [19] in which the age and the sex had been said to be detrimental to the quality of life. Despite the fact that health insurance is assessable to only a minority of the population in our country, it has not been said to have an influence of the quality of life of our patients; this implies that the deterioration of the quality of life was not related to the capacity of our patients to afford the financial expenses of their sicknesses. The knowledge of diagnosis (cirrhosis, hepatocellular carcinoma) did not influence QOL of our patients ( $p = 0.477$ ) in contrast to some studies [13] [20] in which knowledge of diagnosis play an important role in the alteration of QOL. Impaired QOL was greater among HCV patients without significant statistical difference. The mode of transmission of HCV such as substance abuse plays an important role in achieving QOL [13]. However, we did not assess the influence of the mode of HBV or HCV transmission in this study. The QOL was less impaired in patients with HBV or HCV compared to alcoholic patients. This deterioration concerned both the physical dimension ( $p = 0.000$ ) and the mental dimension ( $p = 0.014$ ); our results were similar to those of other authors [20] [21] who had shown rather than patients with alcoholic hepatitis disease had reached the neighboring QOL to that observed in patients with chronic HCV hepatitis. This result could be explained that most patients with chronic viral liver disease were also an alcoholic. Also this result can be explained by the feeling of guilt experienced by our patients who fear infecting also the family members, who may find themselves in the same situation. This study has certain limitations: it is limited to the only service of hepatology and gastroenterology of the University health center Campus of Lomé. Patients' reports of conditions do not exactly reflect physicians' diagnosis. The short form 36 health survey questionnaire (SF-36) is not specific for chronic liver diseases.

## 5. Conclusion

The quality of life is impaired in our patients suffering from chronic liver diseases. This impairment of quality of life is less pronounced in patients with viral liver disease. The establishment of a population risk profile and assessment of the quality of life of these patients would allow a support and adapte special preventive among these patients.

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