Original Article

Self-Management and Quality of Life Among Patients with Decompensated Liver Cirrhosis

Kiran Waris[1], Adnan Yaqoob[1], Hajra Sawar[1] and Sadia Khan[2]

ABSTRACT

Objective: To assess the effect of nursing intervention on knowledge about self-management and quality of life among patients with decompensated liver cirrhosis.

Study Design: Quasi-experimental study

Place and Duration of Study: This study was conducted at the Department of Gastroenterology, Bahawal Victoria Hospital Bahawalpur, Punjab, Pakistan from 1st April to 30th September 2022.

Materials and Methods: Thirty two who are diagnosed cases of decompensated liver cirrhosis, aged between 30 to 60 years of both genders were enrolled. After taking the informed consent from patient's intervention was given to patients as they were enrolled in study. The research scholar developed an interventional program. The post data was collected after the one month of intervention and was compared with pre-data to find out effect on knowledge about self-management and quality of life. Post assessment was done with the help of same questionnaires. Two questionnaires used for data collection Self-management knowledge questionnaire and CLDQ.

Results: Six (18.8%) were between the age group 21-40 years and 26(81.3%) were in the age between 41-60 years. Majority of the patients were females 17 (53.1%) were below primary education 21(65.6%). The findings revealed that there was a significant difference between the pre and the post interventional knowledge's score among patients regarding self-management and their Quality of life measure by CLDQ was also improved (p value <0.001).

Conclusion: The educational intervention has a positive effect on decompensated liver cirrhosis patients' quality of life and self-management skills. Moreover, the liver disease education intervention is beneficial in increasing patient and family knowledge.

Key Words: Liver cirrhosis, Patient care, Educational guidelines

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INTRODUCTION

Cirrhosis is a critical stage of liver scarring (fibrosis) caused by various forms of liver diseases and conditions, including hepatitis and chronic alcoholism. Any time the liver is injured, whether by disease, excessive alcohol consumption, or any other reason, it attempts to repair itself. This is how scar tissue develops. As cirrhosis progresses, scar tissue increasingly form, making it impossible for the liver to function. Advanced cirrhosis threatens life.[1]

In Pakistan, 60-70% of individuals have chronic liver disease, and 50% have hepatocellular carcinoma. Liver cancer is the sixth most prevalent disease worldwide, and it affects people in their fourth to fifth decades of life in Pakistan.[2] Pakistan is a developing nation with numerous causes and risk factors that contribute to liver disease, such as Hepatitis B and C. Other types of hepatitis also contribute to liver damage, 24% individuals die from bacterial peritonitis in DCLD, a late consequence of cirrhosis.[3]

Despite the fact that liver cirrhosis is an irreversible illness and the main cause of death. We can all have a role in reducing illness morbidity. Complications may be avoided by appropriate illness treatment and education.[4] There has been little studies on the disease burden of liver disorders in Pakistan, despite the fact that there are many review articles on the topic accessible worldwide.[5] In the last two decades, health-related quality of life has become an important additional outcome parameter. Quality of life is also increasingly recognized as an important outcome parameter in chronic diseases.[6] Self-management is described as dealing with the medical, emotional, and social difficulties of a chronic illness in daily life to achieve quality of life.[7] Self-management intervention have been comprehensively carried out to chronic disease educational programs, which are map up to slow down degenerated renal functions, rule out

[1.] Department of Lahore School of Nursing / Physical Therapy[2], Faculty of Allied Health Sciences, The University of Lahore.

Correspondence: Kiran Waris, MSN Scholar, Lahore School of Nursing, Faculty of Allied Health Sciences, The University of Lahore.
Contact No: 0300-9683143
Email: kiranwaris143@gmail.com

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depression, and enhance quality of life.[8] Nevertheless, nurses must provide knowledge to patients regarding social support and assisted emotionally to live a healthy life, teachings on the medicine regimen, self- care activities, for the better self-management.[9]

Nurses play an essential role in interdisciplinary teams in many areas and the function of nurses in liver disorders is not specified; they work on the basis of their experience. The important thing to note is that nursing research in liver illness is very limited when compared to other chronic diseases. The commission's top suggestion, out of ten, is to enhance nurse education and training programs in the hematology department. Nurses have an important educational function.[10]

The current study is therefore designed to assess the knowledge of liver cirrhotic patients regarding self-management and quality of life. The study may have a variety of implications. Self-management is very important in chronic and lifelong diseases. Through this study patient will be able to manage the minor problems and frequent visits to hospital, ultimately knowledge about self-management will minimize the burden of health care department.

MATERIALS AND METHODS

This quasi experimental study was conducted at Department of Gastroenterology, Bahawal Victoria Hospital Bahawalpur, Punjab, Pakistan from 1st April 2022 to 30th September 2022. A total of 32 diagnosed cases of decompensated liver cirrhosis, aged between 30 to 60 years of both genders were enrolled. Patients were recruited by purposive sampling technique. After taking the informed consent from patient's intervention was given to patients as they were enrolled in study. The research scholar developed an interventional program. The intervention was developed by reviewing past and recent literature.[11-13] Procedure took 1 month, on each week 9 patients were enrolled. Time of educational sessions was different for patient to patient according to their level of understanding. Education was on nature of disease, complications of disease, diet, medications, knowledge about warning signs, how to self-manage the symptoms and about treatment and vaccinations. Booklets were handed over to each subject of study at the first contact between patient and the researcher. Intervention for each participant was completed in 8 weeks while overall intervention was completed in 12 weeks. The post data was collected after the one month of intervention and was compared with pre-data to find out effect on knowledge about self-management and quality of life. Post assessment was done with the help of same questionnaires. Two questionnaires used for data collection were:

I. Self-management knowledge questionnaire: The tool was consisting of total 13 questions with 3 or more options. Correct answer was scored as one score while wrong or don't know scored as 0. Less than 60% was considered as inadequate knowledge. The patients got 60% or more had adequate knowledge.

II. Chronic liver disease questionnaire: CLDQ comprises of 29 questions. Responses were recorded on 5 point Likert scale. Responses were **"all of the time"** to **"None of the time".** Score 1 was the most important while 5 was marked as least important. Results showed the worst to best quality of life.

Data was entered and analyzed by using SPSS 24. Normality was assessed through Shapiro Wilks test. Wilcoxon signed rank was applied to compare the scores of knowledge regarding self-management and CLDQ. P-Value ≤ 0.05 was considered as statistically significant

RESULTS

Six (18.8%) were between the age group 21-40 years and 26(81.3%) were in the age between 41-60 years. Majority of the patients were female 17 (53.1%) were below primary eduaction 21(65.6%), and majority of the patients were suffering from 1 to 5 years i.e. 16 (50.5%) whereas 15 (46.9%) patients had duration of 6 months to 1 year and the remaining 1 (3.1%) patients suffered from the disease for the period of more than 5 years (Tables 1-2).

Table No.1: Demographic information of the patients (n=32)

Variable	No.	%
Age (years)		
21 to 40	6	18.8
41 to 60	26	81.3
Gender		
Male	15	46.9
Female	17	53.1
Qualification		
Below Primary	21	65.6
Middle	9	28.1
High and above	2	6.3
Disease Duration		
6 months to 1 year	15	46.9
1 to 5 years	16	50.0
More than 5 years	1	3.1

Table No. 2: Comparison of pre and post intervention mean knowledge scores regarding self-management among patients with decompensated liver cirrhosis (n=32)

Variable	Pre-interven-tion median	Post-intervention median	z-value	p-value
Knowledge Scores	4.0	10.0	-3.861	<0.001

Overall pre-interventional median knowledge scores among patients with decompensated liver cirrhosis regarding self-management was 4.0 while, the post-

interventional median knowledge's scores were increased to 10.0. The findings revealed that there was a significant difference between the pre and the post interventional knowledge's score among patients regarding self-management as evident by ($p<0.001$). The overall pre-interventional median of CLDQ scores among patients was 54.5 while, the post-interventional median of CLDQ scores were increased to 114.0. The findings revealed that there was a significant difference between pre and post interventional CLDQ scores as evident by ($p<0.001$) [Table 3].

Table 4 shows that in the pre-interventional phase the majority of the patients had inadequate knowledge i.e. 27 (84.4%) while only 5(15.6%) patients had adequate knowledge regarding self-management. Whereas in the post-intervention phase there were 6(18.8%) patients had inadequate knowledge and remaining 26(81.3%) patients had adequate knowledge regarding self-management.

Table No.3: Comparison of pre and post intervention quality of life scores among patients with decompensated liver cirrhosis (n=32)

Variable	Pre-interven-tion median	Post-intervention median	z-value	*p*-value
Knowledge Scores	54.5	114.0	-4.938	<0.001

Table No.4: Comparison of pre and post interventional knowledge categories (n=32)

Knowledge Categories	Pre intervention	Post intervention
Adequate	5 (15.6%)	26 (81.3%)
Inadequate	27 (84.4%)	6 (18.8%)

DISCUSSION

Chronic disease self-management has been shown to be very beneficial for those dealing with chronic diseases to improve overall health and quality of life. However, self-management education is not tied to a specific time period or participation in a specific programme. In order for a patient to be in the best possible health, they need to develop a relationship with a nurse who can help them manage their chronic condition.

The results of current study revealed that, 6(18.8%) were between the age group 21-40 years and 26(81.3%) were in the age between 41-60 years. Majority of the patients were female 17(53.1%) were below primary education 21(65.6%). The findings revealed that there was a significant difference between the pre and the post interventional knowledge's score among patients regarding self-management and their quality of life measure by CLDQ was also improved ($p<0.001$). However, the findings of current study were comparable by the result of a pilot study conducted by Been[14] reveals that recipients who receive intervention admire the intervention, become more competent in solving their problems and social interactions. There was an improved quality of life among the intervention group and the nurse-led-self management approach was successfully accepted by patients and professionals as well.

Self-management initiatives significantly improved patients' quality of life, according to another study. Patient education, health-related quality of life, health status, and self-management abilities all show significant improvements.[15] In a different study, Beg et al. assessed the effect of an information booklet on patients with cirrhosis' level of knowledge. Understanding liver cirrhosis, complications, surveillance, self-management, and Treatment procedure were all part of the booklet's educational material. Results showed that the booklet considerably increased ability to enhance the knowledge of the condition.[16] In another study conducted on educational intervention by Goldsworthy et al[17] reported that the patient awareness and knowledge of liver cirrhosis was lacking at the start of the study but significantly increased following educational intervention. Furthermore, this study's educational intervention was a successful strategy for managing liver cirrhosis. The teaching instrument used was different, but the outcomes paralleled those of the current study. In a study, Kadokawa et al[12] investigated the efficacy of educational programmes for people with chronic liver illnesses. After attending classes, patients' and their families' knowledge levels dramatically increased, and the recovery rate was correlated with participation in the sessions. Overall, this study's findings indicated that the intervention improved the quality of life for patients with liver cirrhosis. Their attitude toward therapy can be more positive and have greater results through enhancing quality of life. Overall, the study's findings demonstrated that educational interventions greatly increased patient knowledge and may be applied as a practical way to raise awareness of patients with liver cirrhosis in clinical settings. In a study, Zandi et al[18] found that a self-care teaching programme and ongoing monitoring in cirrhotic patients for three months significantly improved quality of life.

CONCLUSION

The educational intervention may have a considerable positive effect on decompensated liver cirrhosis patients' quality of life and self-management skills. Patients' education, which can significantly alter their behaviours, management abilities, and quality of life, is greatly influenced by nurse's intervention. Moreover, the liver disease education intervention is beneficial in increasing patient and family knowledge.

Author's Contribution:

Concept & Design of Study:	Kiran Waris
Drafting:	Adnan Yaqoob, Hajra Sawar
Data Analysis:	Hajra Sawar, Sadia Khan
Revisiting Critically:	Kiran Waris, Adnan Yaqoob
Final Approval of version:	Kiran Waris

Conflict of Interest: The study has no conflict of interest to declare by any author.

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