

Coping Strategies among Patients with Cirrhotic Ascites

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Abstract

Background: Cirrhotic ascites is a pathological accumulation of fluid in the peritoneal cavity. Cirrhosis is the most common cause of ascites. **Aim:** This study was aimed to assess coping strategies among patients with cirrhotic ascites. **Research design:** Descriptive design was utilized in carrying out this study. **Setting:** Medical Outpatient Clinic at Benha University Hospital in Benha City. **Sample:** A simple random used to choose patients with cirrhotic ascites which included 146 patients. **Tool of data collection.** Two tools were used. **Tool I):** A structured interviewing questionnaire which consisted of four parts. **Part I):** Socio-demographic characteristics of patients with ascites, **Part II):** Health problems of cirrhotic ascites patients. **Part III):** Patient's knowledge regarding cirrhotic ascites. **Part IV):** Practice of patients regarding care of cirrhotic ascites. **Tool II):** Coping strategies regarding patient care with cirrhotic ascites. **Result:** 65.1% of studied cirrhotic ascites patients were age group >50 years old with the mean \pm SD 51.92 ± 8.57 , 99.3% of them had nervous system problems of stress, tiredness and severe fatigue, 43.2% of studied cirrhotic ascites patients had average total knowledge level about cirrhotic ascites disease and coping strategies, 56.2% of patients had unsatisfactory total reported practices level, also, 52.7% of them had moderate total level of coping strategies, while, there was a highly statistically significant relation between patient's total knowledge level about cirrhotic ascites, total reported practices and their total coping strategies. **Conclusion:** There was a highly statistically significant relation between patient's total knowledge level about cirrhotic ascites, total reported practices and their total coping strategies. **Recommendation:** Health education program should be developed and implemented for cirrhotic ascites patients to enhance their knowledge, practices and coping with the disease.

Key words: Coping Strategies, Cirrhotic Ascites Patients, Nursing, Practices.

Introduction

Cirrhotic ascites is the pathologic accumulation of fluid in the peritoneal cavity between the membrane lining the abdominal wall and the membrane covering the abdominal organs that occurs due to an osmotic and/or hydrostatic pressure imbalance secondary to portal hypertension (cirrhosis, heart failure) or no portal hypertension. The first abnormality that develops is portal hypertension in the case of cirrhosis. Portal pressure increases above a critical threshold and circulating nitric oxide

levels increase, leading to vasodilatation. As the state of vasodilatation becomes worse, the plasma levels of vasoconstrictor sodium-retentive hormones elevate renal function declines, and ascetic fluid forms, resulting in hepatic decompensation (Liu et al., 2022).

Cirrhosis is the most common cause of ascites in the United States, accounting for approximately 85 percent of cases. In addition, ascites is the most common complication of cirrhosis. Within 10 years after the diagnosis of compensated cirrhosis, approximately 58

percent of patients will have developed ascites. The incidence of ascites 2020 is approximately 60,000 per 100,000 individuals with cirrhosis worldwide. The incidence of ascites is approximately 75,000 per 100,000 cirrhotic individuals with a mortality of 50%, within 3 years. Patients of all age groups may develop ascites. cirrhotic ascites usually affects individuals of the non-Hispanic blacks and Mexican Americans race. Males are more commonly affected by cirrhotic ascites than females. The male to female ratio is approximately 2.5 to 1 (**Theodorakopoulos, 2020; Gao et al., 2021**).

Ascites often have been classified into three grades, consisting Grade 1 which shows mild ascites only detectable by ultrasound examination, Grade 2 which is moderate ascites and Grade 3 which shows the severe ascites with marked abdominal distension This stage is also marked by malnutrition, estimated between 50% and 90% of these patients, and associated with disease aggravation, higher morbidity, and mortality (**Tandon et al., 2021**).

Coping strategies were thoughts and behaviors mobilized to manage internal and external stressful situations. It was a term used distinctively for conscious and voluntary mobilization of acts, different from 'defense mechanisms' that were subconscious or unconscious adaptive responses, both of which aim to reduce or tolerate stress. When individuals were subjected to a stressor, the varying ways of dealing with it are termed 'coping styles,' which are a set of relatively stable traits that determined the individual's behavior in response to stress. These were consistent over time and across situations. Generally, coping strategies was divided into reactive coping (a reaction following the stressor) and proactive coping (aiming to neutralize future stressors). Proactive individuals excelled in stable

environments because they are more routinized, rigid, and were less reactive to stressors, while reactive individuals performed better in a more variable environment (**Algorani et al., 2022**).

Community Health Nurses play important role for cirrhotic ascites patients in their day to day contact with patients had the opportunity to asses potential problems, discuss medical regimens and give teaching about all aspects of care, these includes maintaining physical activity, recognizing activity limitations, conserving energy, following dietary modification and adhering to medication schedule, in addition to maintaining life style changes that best suit those patients, (CHN) were monitoring body weight, abdominal girth, prevent deep vein thrombosis, encourage ambulation and educate the cirrhotic ascites patients and families about the importance of a low sodium diet, Carefully monitoring serum electrolyte levels and correct it if abnormal. (**Chiejina et al., 2022**).

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Significant of the study:

In Egypt 2020, the most common disease that causes patients to get ascites is cirrhosis,

which accounts for approximately 80% of cases. Up to 19% of patients with cirrhosis will have hemorrhagic ascites; this may develop spontaneously with 72% of the cases most likely due to bloody lymph and 13% due to hepatocellular carcinoma (Sharma et al., 2020). Teaching patients and their caregivers appropriate coping strategies can have a significant impact on the way perceived their condition, the severity of the symptoms. In patients diagnosed with cirrhotic ascites disease, assertive communication was associated with less pain interference and psychological distress. Coping skills effects extend to family caregivers who reported less psychological distress when practicing guided imagery. Physicians, psychiatrists, physical therapists, nurses, and health educators shared the role of educating patients to become more responsible for their health. (Algorani et al., 2022).

Subjects and methods

Research design:

A descriptive research design (Descriptive research is a research method that describes the characteristics of the population or phenomenon It can answer what, where, when, and how questions, but not why questions) was utilized in the current study.

Aim of the study

The aim of this study was to assess coping strategies among patients with cirrhotic.

Research questions:-

- 1- What are health problems of the patients with cirrhotic ascites?
- 2- What are the patients knowledge regarding cirrhotic ascites and coping strategies?
- 3- What are reported practices of patients regarding cirrhotic ascites?
- 4- What are the coping strategies of patient regarding cirrhotic ascites?
- 5- Is there relation between coping strategies, knowledge, and practice of patients regarding cirrhotic ascites?

Setting:

The study was conducted at Medical Outpatient Clinic in Benha University Hospital at Benha city which consider the main governmental hospital in Qalyubia Governmental.

Sampling:

A simple random sample was chosen of patients of cirrhotic ascites was attended to pervious mentioned setting; it includes 146 from 230 patients according equation.

$$n = N / 1 + N (e)^2$$

e=standard error %5

N=total patients attend

The inclusion criteria was patient's aged more than 40 years with mild and moderate degree of cirrhotic ascites disease.

Tools of data collection:

Two tools were used for data collection

Tool I: Structured interviewing

questionnaire: It was developed by the researcher based on literature review of the current and past available national and international references related literature about cirrhotic ascites patients by using a journal, textbooks and internet search, It was written in simple clear Arabic language: It was consisted of four parts.

Part I: Socio- demographic characteristics

of patients included 9 questions about age, sex, level of education, job description, marital status, residence, family type, social status and income.

Part II:-Health problems

of patients regarding cirrhotic ascites were concerned with patients which included 5 questions about digestive problems, respiratory problems, circulatory problems, nervous system problems, feeling pain problems as (the nature of pain, the periods between episodes of pain and the treatment during pain occur).

Part III: Included questionnaire to assess patient's knowledge about cirrhotic ascites and coping strategies ; it consisted of 12

closed ended questions regarding Cirrhotic ascites that are, meaning, causes, symptoms, signs, the factors that increase the risk of developing cirrhotic ascites, the tests and examinations, control of cirrhotic ascites, complication of cirrhotic ascites, methods of treating cirrhotic ascites, prevention of cirrhotic ascites, meaning of coping strategies, the importance of cirrhotic ascites, and source of knowledge.

Scoring system of knowledge was done as the following:

The scoring system of knowledge was calculated as follows 2 score for complete correct answer, while 1 score for incomplete correct answer, and 0 for don't know. For each question of knowledge, the score of the items was summed-up and the total divided by the number of items. These scores were converted into a percent score. Total knowledge score was classified as the following:

Total knowledge score = 24 Points expect sources of knowledge

- **Good** when total score >75% equal more than 18 points.
- **Average** was 50% to less than 75% equal 13-20 points.
- **Poor** was <50% equal less than 12 points.

Part IV: Which was concerned with reported practices of cirrhotic ascites patients, it consisted of 38 items, classified into 4 categories:

- Nutrition for cirrhotic ascites patients.
- Daily living activities for cirrhotic ascites patients.
- Treatment, medication and periodic follow-up for cirrhotic ascites patients.
- Protection from infection for cirrhotic ascites patients.

Practices scoring system: Designed for the assessment of reported practice, a score (1) grade was given for done and score (0) grade was given for not done. The score of each item

summed-up and converted into a percent score.

Total reported practices score = 38 points

- **Satisfactory** > 60% equal (>23 points)
- **Unsatisfactory** <60% equal (<23 points)

Tool II: Coping strategies regarding care with cirrhotic ascites patients,

This tool was designed to evaluate the patient adaptive regarding their cirrhotic ascites disease through 28 questions divided into 5 categories as follow:

- Active adaptation.

- Emotional, financial support and self-distraction, Expressed feeling, Positive and social re-evaluation and Acceptance and religiosity.

Scoring system:

Each step of coping strategies had 3 levels of answer: always, sometimes, and never. These were respectively calculated as follow 2 score for always, while 1 score for sometimes, and 0 score for never. For each items of coping strategies, the score items was summed-up and the total divided by the numbers of items. These scores were converted into a percent score and the total coping strategies scores was classified as the following:

Total coping strategies scores = 56 points

- **High** when total score $\geq 75\%$ equal 84 points or more.
- **Moderate** was 50% to less than 75% equal 56-83 points
- **Low** was <50% equal less than 55 points.

Content validity:

Tools validity test was done by five experts of Faculty staff nursing of the Community Health Nursing Department. Faculty of Nursing, Benha University who reviewed the tools for clarity, relevance, comprehensiveness, and applicability.

Reliability of tool:

Reliability of tools was applied by researchers for testing the internal consistency

of the tool, by administration of the same tools to the same subjects under similar condition on one or more occasion. Internal consistency reliability of all items of tool was done by Crombach's Alpha coefficient reliability was 0.924 for knowledge, 0.795 for practices, and 0.778 for coping strategy.

Ethical considerations:

The researchers introduced themselves and explained the aim of the study to the participants. All ethical issues were assured, oral consent obtained from the participants at Outpatient Clinic before interviewing them. Confidentiality of the information was assured through the study process where the personal data were disclosed and used only for the study purpose. Each participant was informed that participation is voluntary and the right to withdraw from study at any time without rational.

Pilot study:

The pilot study was carried out on 15 participants who represented 10% of the studied sample. The pilot study was aimed to assess the tools clarity and time needed to fill each tools as well as to identify any possible obstacles that may hinder the data collection. No modifications were done so the pilot study sample was included in the total sample.

Field work

The study was carried out through a period of six months from the beginning of January 2022 up to the end of June 2022. The researcher visited Medical Outpatient Clinic two days weekly (Saturdays-Tuesdays) from 9 am to 12 pm. The researchers met 2 - 4 patients/visit for data collection. The researcher interviewed the participants in the selected Medical Outpatient Clinic at Benha University Hospital, after introducing herself and explaining the aim of the study and then distributed the questionnaire sheet after clear explanations of the way to fill out and in the presence of the researcher. Each tool took

about 30-40 minutes.

Statistical analysis:

The collected data was analyzed, tabulated and presented in figures by using the suitable statistical methods as number and percentage distribution by Statistical Package for Social Science (SPSS) version 22. Data were presented by using proper statistical tests that were used to determine whether there were significant relation or not and if there were positive correlation or not.

P-value was used to determine significance of results as follows:

- P value > 0.05 is not- statistically significant difference.
- P value < 0.05 is statistically significant difference.
- P value < 0.001 is highly statistically significant difference.

Results:

Table (1): Shows that; 65.1% of studied patients were in age group between >50 years old with the mean \pm SD 51.92 \pm 8.57, regarding gender 67.1% of studied patients were male, 38.4% of studied patients had secondary education, while, 69.9% of them didn't work and had small family. Moreover, 84.9% of them were married, and 87% of the studied patients were living in rural area, 67.1% of them were living with husband, wife, and sibling, also, 54.1% of them, their monthly income didn't enough.

Table (2): Indicates that; 81.5% of the studied cirrhotic ascites patients had digestive health problems of burning sensation in the stomach, 95.2% of them complained of respiratory problems of difficulty in breathing, 81.5 % of them complained of circulatory problems as result of swelling of the legs, 99.3% had nervous systems problems of stress, tiredness and severe fatigue, while, 55.5% of them were feeling in pain after eating, 65.8% of them had severe and tolerable pain, 67.8% of them

complained from pain repeated throughout the day, also, all of patients followed availability of medication when the pain occurred.

Figure (1): Shows that; 43.2% of studied cirrhotic ascites patients had average total knowledge level about cirrhotic ascites disease and coping strategies, 39.7% of them had poor total knowledge, while, 17.1% of studied patients had good total knowledge level about cirrhotic ascites disease and coping strategies.

Figure (2): Reveals that; 56.2% of them had unsatisfactory total reported practices level,

while, 43.8% of cirrhotic ascites patients had satisfactory total reported practices level.

Figure (3): Reveals that; 52.7% of cirrhotic ascites patients had moderate total level of coping strategies, and 27.4% of them had high total level of coping strategies, while 19.9% of them had low total level of coping strategies.

Table (4): Shows that; there were highly statistical significant relation between patient's total knowledge level about cirrhotic ascites and coping strategies, and their total reported practices ($p < 0.001^{**}$).

Table (1): Frequency distribution of the studied cirrhotic ascites patients regarding their socio-demographic characteristics (n=146).

Socio-demographic characteristics	No.	%
Age		
>40	21	14.4
40-<50	30	20.5
≥ 50	95	65.1
Min –Max	33-64	
Mean ±SD	51.92±8.57	
Gender		
Male	98	67.1
Female	48	32.9
Educational level		
Don't read and write	45	30.8
Basic education	27	18.5
Secondary education	56	38.4
University education or more	18	12.3
Job status		
Work	44	30.1
Not work	102	69.9
Marital status		
Married	124	84.9
Widow	22	15.1
Residence		
Rural	127	87.0
Urban	19	13.0
Family type		
Small	102	69.9
Extended	44	30.1
Person living with		
Husband, wife and siblings	98	67.1
Husband, wife, grand pa & ma and siblings	32	21.9
Monthly income		
Enough	34	23.3
Enough and saved	33	22.6
Not enough	79	54.1

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Table (2): Frequency distribution of the studied cirrhotic ascites patients regarding their health problems (n=146).

Health problems	No.	%
Digestive system problems		
Abdominal distention	90	61.6
Loss of appetite	72	49.3
Abdominal pain	108	74.0
Nausea and vomiting	36	24.7
Burning sensation in the stomach	119	81.5
Yellowing of the face	81	55.5
Respiratory system problems		
Difficulty in breathing	139	95.2
Rapid breathing	87	59.6
Chest pain	36	24.7
Cough	25	17.1
Difficulty in breathing during sleeping	79	54.1
Problems with the circulatory system		
Rapid heartbeat	45	30.8
Swelling of the legs	119	81.5
Cyanosis	45	30.8
Hypotension	108	74.0
Problems with the nervous system		
Headache	28	19.2
Stress, tiredness and severe fatigue	145	99.3
General lethargy	100	68.5
Mental confusion	82	56.2
Time of feeling in pain		
After tension	9	6.2
After exertion	72	49.3
After daily life activities (such as marital relations)	0	0.0
After eating	81	55.5
Without reason	29	19.9
The nature of the pain		
Unbearable	23	15.8
Severe and tolerable	96	65.8
Simple	27	18.5
The periods between episodes of pain		
Daily	47	32.2
Repeated throughout the day	99	67.8
Availability of medication follow when the pain occurs		
Yes	146	100.0

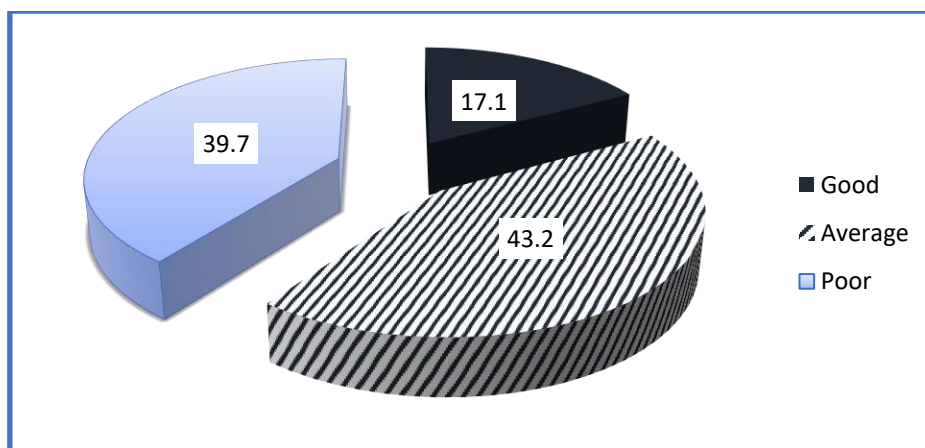


Figure (1): Percentage distribution of the studied cirrhotic ascites patients regarding their total knowledge level about cirrhotic ascites and coping strategies (n=146).

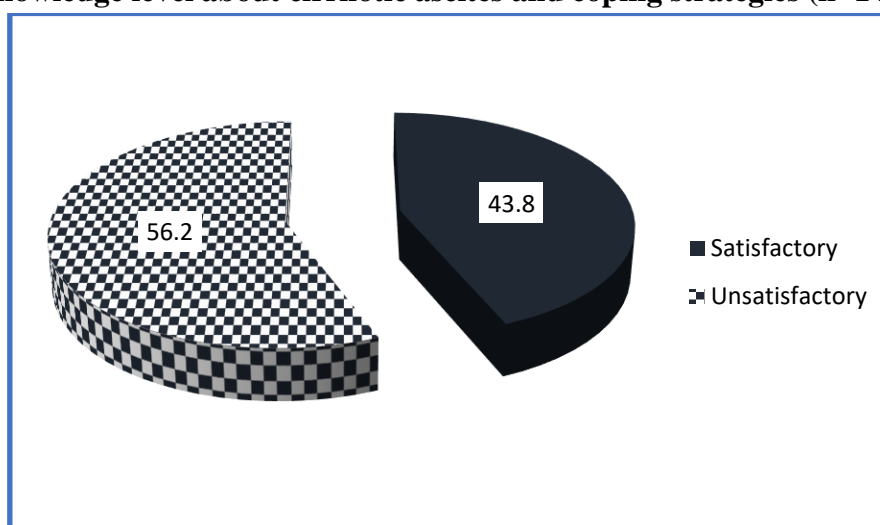


Figure (2): Percentage distribution of the studied cirrhotic ascites patients regarding their total reported practices level (n=146).

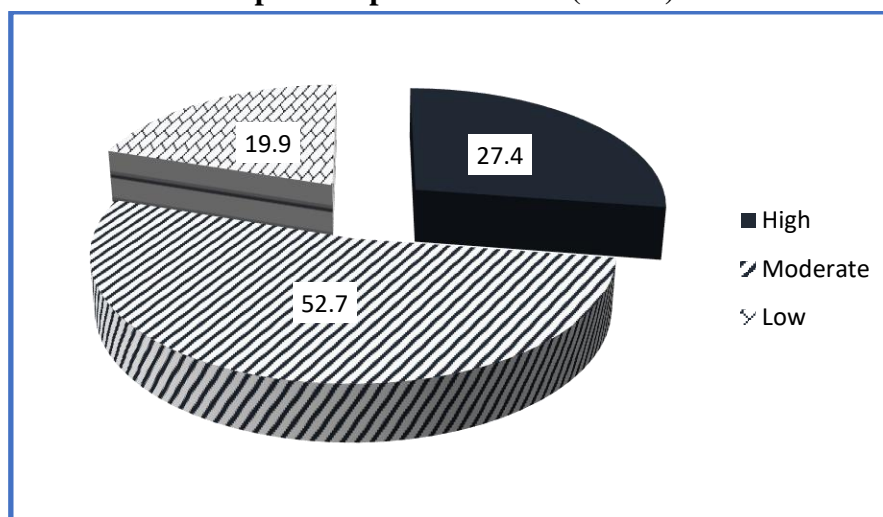


Figure (3): Percentage distribution of the studied cirrhotic ascites patients regarding their total coping strategies level (n=146).

Table (3): Correlation between studied cirrhotic ascites patients total knowledge score, total reported practices and total coping strategies (n=146).

Variable	Total reported practices		Total coping strategies	
	R	p-value	R	p-value
Total knowledge	0.343	0.000**	0.378	0.000**
Total reported practices	-	-	0.329	0.000**

Discussion

Ascites is a serious turning point in the natural history of cirrhosis because it is associated with two years mortality of 50% that may need to consider liver transplantation as a treatment option. There have been several changes in the clinical management of ascites cirrhosis in recent years. Although the development of ascites usually indicates advanced liver disease, the clinical history of patients with cirrhosis and ascites are widely different (**Awadallah et al., 2020**).

Coping strategies are important components of care in patients diagnosed with liver disease. Also, coping strategies have been shown to mediate stressors and chronic illnesses such as cirrhotic ascites and other consequences such as physical and psychological wellbeing. Individuals with chronic infection have a high risk of developing cirrhosis ascites and hepatocellular carcinoma, and the ability for such persons to cope with this challenge is imperative to their general wellbeing (**Ryou et al., 2020**).

Regarding socio-demographic characteristics of cirrhotic ascites patients. The finding of the present study showed that almost two thirds of studied patients were in age >50 years old with the mean \pm SD/51.92 \pm 8.57, regarding gender two thirds of studied patients were male, slightly less than two fifth of studied

patients had secondary education, while, more than two thirds of them weren't work and had nuclear family. Moreover, majority of them were married, and most of the studied patients were living in rural area, more than two thirds of them were living with husband, wife, and sibling, also, more than half of them, their monthly income not enough. This result supported with **Awadallah et al., (2020)**, who conduct a study about "Healthy behaviors adjustment in the elderly patients with chronic liver cirrhosis" in Sohag Egypt (n=100) and revealed that, the mean age of patients was 68.52 \pm 2.92.

Also, agreed with **Alfauomy et al., (2020)**, who studied "Effect of nursing interventions on self-management behaviors of female geriatric patients with Liver Cirrhosis" in Damanhour, Egypt (n=120), and reported that the age of the study and control groups ranged from 60 up to 86 years with a mean of 66.84 \pm 4.26. This result was contrasted with **Mansouri et al., (2017)**, who studied "The effect of self-management training on self-efficacy of cirrhotic patients referring to transplantation Center of Nemazee Hospital" in Iran (n=130), and showed that the mean age of the intervention and control groups of cirrhotic ascites patients were 41.6 \pm 13.8 & 41.37 \pm 12.02, respectively.

This result agreed with **Mansouri et al., (2017)**, who revealed that about two thirds of studied patient were male. This may be due to patient male is high risk group for cirrhotic ascites.

These results disagreed with **Khalil et al., (2020)**, who examined "Assessment of patients nutritional status at Assiut University Hospital " in Assiut (n=115), and demonstrated that more than two thirds (68%) of patients had an illiteracy education level, less than three fifths (13.3%) of patients retired (weren't work). This result can be explained by the majority of the studied patients were old age. This finding agreed with what was reported by **Atya et al., (2019)**, who studied "Effect of nursing teaching guidelines among patients with cirrhosis on their knowledge regarding minimizing hepatic encephalopathy" in Assiut, Egypt (n=130), demonstrated that most of studied patients had living in rural area. This finding could be attributed to geographical location of Outpatient Clinic of Banha Hospital at Banha City.

This finding agreed with **Mandoor et al., (2018)**, who studied "Dietary patterns and nutritional status of patients with early stages liver cirrhosis "Alexandria, Egypt (n= 254) reported that more than two thirds (69.9%) of patients living with ranged from 2 up to 10 number of people that live with patients with a mean of 66.84 ± 4.26 .

This result agreed with **Alfauomy et al., (2020)**, who demonstrated that more than two thirds of (96% and 84%) patients were living with family or relatives. this result consistent with **Abdullah et al., (2021)**, who conducted "Quality of life among elderly patients with chronic liver diseases at Al-Rajhy Liver Hospital, Assiut University" Assiut, Egypt (n=100), demonstrated slightly less than three fifth (58.7%) of Person who supports or lives with Husband/ wife. From the researchers point of view, cirrhotic ascites patients needed physical and emotional support, so, they were living with their family members.

The current results showed that the most of the studied patients had nervous systems problems of stress, tiredness and severe fatigue. This finding not in the same line with **Mobed et al., (2020)**, who conducted a study about "Liver Cirrhosis: Assessment of patient's nutritional status at Assiut University Hospital "Assiut, Egypt (n=180) and found that the majority (80%) of patients suffered from bleeding (cardiovascular problems). This result can be explained by an important function of the liver is making toxic substances in the body harmless. These substances may be made by the body (ammonia), or substances that take in (medicines). When the liver is damaged, these "poisons" can build up in the bloodstream and affect the function of the nervous system.

In relation to total knowledge level about cirrhotic ascites and coping strategies, the present study showed that approximately two fifth of cirrhotic ascites patients had average total knowledge level about cirrhotic ascites disease and coping strategies, slightly less than two fifth of them had poor total knowledge, and one fifth of studied patients had good total knowledge level about cirrhotic ascites disease and coping strategies. This finding was supported by **Mahmoud et al., (2020)**, who found that (62.5%) of the studied patients had unsatisfactory knowledge score, where only (37.5%) of them had satisfactory knowledge score. On another hand this result disagreed with **Piano et al., (2020)**, who conduct a study of "Abnormal liver function tests predict transfer to intensive care unit and death in COVID-19 ". Italy (n=329), who reported that third (33.3%) patients had good knowledge, while, the remaining less than third (29%) of patients had poor knowledge. Three quarters (75.3%) of them study patients reported that there is no effective coping and knowledge level about cirrhotic ascites disease.

Regarding their studied patients total practices parts, the current study reveals that slightly less than three fifths of cirrhotic ascites patients had unsatisfactory total reported practices level and approximately two fifths of them had satisfactory total reported practices level. This finding disagreed with **Awad, (2018)** who studied "quality of life Hepatitis C Patients Undergoing Interferon Therapy in Benha City" (n=165) reported that more than three quarter of studied patients had satisfactory practices. This might be due to most of studied patients from rural area and didn't have sufficient information about how to deal with disease.

According their total coping strategies level more than half of cirrhotic ascites patients had moderate total level of coping strategies, while, less than third of them had high total level of coping strategies, and one fifth of them had low total level of coping strategies. This finding was agreed with **Azrumelashvili & Kituashvili, (2022)**. Who conduct a study of "Quality of Life and Disease Coping Strategies in Patients with Rosace in " Tbilisi, Rosace (n= 138) reported that the study has determined that Average diseases coping strategies in feelings, daily personal relationships, treatment. The usage of instrumental social support has the highest score factor in the cope questionnaire.

There were highly statistically significant relation between patient's total knowledge, total reported practices and total coping strategies. These findings were congruent with **Jeyanesan et al., (2022)**, who conduct a study of "Rapid Infection Diagnostics in Cirrhosis patients with decompensated cirrhosis in Europe" (n=455) reported that there were significant interaction effects between knowledge, practice and certain coping strategies. Active coping was associated ($P < .001$) among patients who

acknowledged their disease. Also, **Mohammed et al., (2020)**, found that there is statistically significant correlation between subjects' total knowledge and their total practice regarding self-care management with $R = 0.56$ and $P < 0.05$.

Conclusion:

Regarding the health problems of studied cirrhotic ascites patients most of cirrhotic ascites patients had nervous systems problems of stress, tiredness and sever fatigue, also, approximately two fifths of them patients had average total knowledge level about cirrhotic ascites disease and coping strategies, slightly less than three fifths of them had unsatisfactory total reported practice level, more than half of studied patients had moderate level of coping strategies. There were highly statistical significant relation between patient's total knowledge level about cirrhotic ascites and coping strategies, total reported practices and their total coping strategies.

Recommendations:

- 1-Health education program should be developed and implement for cirrhotic ascites patients to enhance their knowledge, practices and coping with the disease.
- 2- Illustrated booklets should be available and distributed to Medical Outpatient Clinics in Benha University Hospital at Benha City about coping strategies among cirrhotic ascites patients.
- 3-Establish Web Page to enhance responding for cirrhotic ascites patient's questions and improve group therapy.
- 4-Further research needed to evaluate quality of life among patients with cirrhotic ascites and assess burden of care among their caregiver.

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