Impact Of An Eductional Program On: Knowledge And Practice Of Hepatitis C Infected Patients Treated By Pegylated Interferon And Ribavirin.

Shimaa Mohammed Abdou Rizk ; Prof. Dr. *Magda Abd-Elaziz*; Prof. Dr. Ayman Abd-El ghafar; Dr. Dina El-tabey Sobeh

M.Sc. Medical Surgical nursing, Mansoura University; Professor of Medical Surgical nursing department, Faculty of Nursing , Ain Shams University; Professor of Internal Medicine, Faculty of Medicine, Mansoura University; Lecturer of Medical Surgical Nursing, Faculty of Nursing , Port- Said University.

ABSTRACT

Background: Hepatitis C virus is an important public health problem in both developing and developed countries, while in Egypt there was the highest prevalence of hepatitis C in the world. *Aim***:** aim of the study evaluate the impact of an educational program on knowledge and practice among patients infected with hepatitis C virus who are treated with Pegylated Interferon and Ribavirin.*Subject and Methods:* The research design was a quasi experimental design. The sample consisted of 100 patients with hepatitis C for study group and 50 patients control group **A purposive** who are age and sex matche as a positive control group. Data was collected through an interviewing questionnaire sheet, which including *two tools, first;* socio-demographic characteristics, patients' history, past medical history and present medical history, *second*; assessment of knowledge and practice.*Results:* The study results revealed that, there was a highly statistically significant difference between pre and post program mean score in the study group after implementation of the educational program in total knowledge and practice with (p≤ 0.001), while in the control group there was no statistically significant difference related to knowledge between pre and post program with (p<0.125) while in practice with (p ≤1.000). *Conclusion:* The study concluded that a highly statistically significant improvement in total knowledge, practice of the study group after implementation of the educational program. In the control group there was no statistically significant improvement**.** *Recommendations:* The study recommended Promotion and enhancement of the self-care modalities to the patient; a strict written instruction with pictures about disease process, allowed foods, rest and physical activities and follow up should be continued after termination of the treatment through a rehabilitation program.

Keywords: hepatitis C, knowledge, practice, interferon, Ribavirin, educational program (EP).

INTRODUCTION

Hepatitis C virus (HCV) is an infectious disease that was discovered in 1989, in which most people had no symptoms until the virus causes liver damage, which can take 10 or more years to happen and leads to chronic liver disease, liver cirrhosis and cancer, so the diagnosis of HCV can also affect the person's quality of life, finances, productivity, and psychological status *Groessl, et al., (2011)*. Moreover, HCV represents a challenge to the health and well-being of the patients and health care system *Sarasin & Filipowicz, (2010); Marcellin, et al.,(2011)*.

The World Health Organization (WHO) declared that, HCV is a global health problem affecting 130–170 million people worldwide. In Egypt, it became a public health problem and its incidence was increased, added to its prevalence, which is the highest reported worldwide. The overall prevalence of patient admission in the hospitals for HCV treatment had been increased at a very high rate over the past years. Moreover, many publications suggest that, over 15.0% of people in Egypt are infected, which equal ten times greater than any other country in the world *Ahmed, & Abdel Al, 2008; Mohsen, et al.,(2011)*.

Remarkable progress has been made in the management of hepatitis C in recent years and combination therapy (Peginterferon/Ribavirin) was the standard of care. Interferon is a substance naturally produced by the body to defend itself from infections and regulating cell function including the hepatitis C virus and tumors. Interferon was the first proven treatment for HCV, but it is effective for few people. It was administered as an injection taken once a week over a period of 24–48 weeks *Thomas, & Zoulim,(2012)*.

Ribavirin, called nucleoside analogues, works by stopping the virus from spreading inside the body, it presents in the form tablets, which taken three times per day. Younger patients who have mild liver disease and fewer virus particles in the liver usually respond better to interferon and ribavirin treatment than others. *Nadeem et al., 2007 and Noghabi et al.,(2010).*

In several large trials of HCV treatment, a wide variety of side effects have been encountered, which usually are problematic for a significant proportion of patients. Major adverse events can occur, but life-threatening adverse events have been rare in large surveys. Moreover, about 10.0 and 15.0 percent of patients report chronic intolerable side effects and discontinue the treatment. Higher doses tend to give higher rates of adverse events. Most symptoms can be managed with medical intervention and dose reduction. *Khalid, et al., (2009); Stefan, et al., (2011); Velmishi, et al.,(2012)*.

Educational programs play an important role in improvement of patients' level of knowledge about HCV among HCV-infected patients that result in a marked increase in willingness to accept HCV treatment and may promote their compliance to treatment as well as improve their quality of life ***Helbling, et al.,(2008).***

Patients who are infected with HCV, have limited knowledge and practice of HCV disease while, improvement in HCV knowledge can influence a patient's decision to explore and initiate HCV therapy by providing educational programs for patients; it may promote their compliance to treatment as well as improve their quality of life. Patient-centered approach to health care in HCV-infected vulnerable population is likely to result in higher compliance with pursuing HCV health care and potentially create efficiencies in the health system to better access specialty care for these individuals ***Sharif, et al.,(2005).***

Nursing profession in such way helps the nurse in arriving at a decision, prediction, and evaluation, nurse is back bone for evaluating the care given to patient and measure patients' satisfaction with the care**,** this can be achieved through the nursing process, which is the tool and the method composed of assessment, diagnosis, planning, implementation and evaluation ***Ramadan,(2006).***

AIM OF STUDY

Evaluate the impact of educational program on knowledge and practice among patients infected with hepatitis C virus who are treated with pegylated interferon and ribavirin.

SUBJECT AND METHODS

The design for this study was (a cohort research design)***. A purposive sample*** of (100) patients with hepatitis C for study group and control group (50) patients who are age and sex matched as a positive control group.

Tools for data collection

Data was collected through an interviewing questionnaire sheet, which including ***two tools***

1- Socio-demographic characteristics, patients' history, past medical history and present medical history.
2- Assessment of knowledge and practice.

Tool I (Appendix I): Structured interviewing questionnaire sheet was developed and consisted of two parts:

Part 1:Socio-demographic Data Sheet:

It was consisted of general characteristics of patients subjected to the study and composed of ten questions, including: sex, age, marital status, residence, level of

education, job, work nature, work status after disease, monthly income, and treatment cost.

Part 2: Medical History Sheet:

a) Past Medical History:

It was constructed and reviewed by utilizing the most recent and relevant literatures, which includeda series of questions to elicit patient's knowledge related to past medical history, it was composed of six questions, which included family history of disease, degree of relatives, history of hospitalization, history of surgical operations, blood transfusion, anti-bilharzias treatment and dentist visits.

b) Present Medical History:

It was developed by the researcher to collect data about the present medical status, it is composed of five questions, which includedduration of disease, how diagnosed the disease, symptoms associated with the disease, when starting treatment, and side effects related to disease.

Tool II: Patient's Knowledge and Practice Assessment Sheet (Appendix II):

It was composed of two parts:

Part 1:Knowledge Assessment Sheet:

It was constructed and reviewing by utilizing the most recent and relevant literatures, which included a series of questions to elicit patients' knowledge related to chronic hepatitis C virus, it was composed of (18)questions and included a definition, mode of transmission, signs and symptoms, complications, investigations, nutrition, treatment ways, action of interferon, indication for administration, contraindication for administration, site of injection, time of injection, duration of treatment, recommendations for treatment, side effects related to gastrointestinal tract, nervous system, and other side effects related to treatment, and recommendations should be followed for positive effect of treatment.

Scoring System:

The answers were evaluated using model key answer prepared by the researcher; the score two for correct answers who exceed 60% of total score of question and zero for incorrect answers which were similar to previous study conducted by *(Hegazy et al., 2013)*. The total knowledge score was (36):

- Satisfactory if score ≥ 60.0% of the maximum score.

- Unsatisfactory if score < 60.0% of the maximum score.

Part2: Practice Assessment Sheet:

It was constructed and reviewed by utilizing the most recent and relevant literatures, which included a series of questions to elicit patient's practice about hepatitis C virus

related to treatment side effects, it's composed of ten multiple choice questions, which included what can you do to overcome vomiting, fatigue, nausea and anorexia, constipation, diarrhea, insomnia, anxiety, depression, headache, and injection site inflammation.

Scoring System:

Practice questionnaire sheet consisted of 10 multiple choice questions,whereasthe answers were evaluated using a model key answer prepared by the researcher, and the score two for correct answers who exceed 70% of total score of question, and zero score for incorrect answers which was similar to previous study conducted by *(Hegazy et al., 2013)*. The total practice score was (20), who considered:

- Adequately done if score ≥ 70.0% of the maximum score.

- Inadequately done if score <70.0% of the maximum score.

RESULTS

Table (1) : illustrates that, (40.0%) of the study group and (34.0%) of the control group are in the same age group from 40 years to less than 50 years old with mean age (39.70 ±7.74) and (39.560 ±9.532) respectively .

As regards to level of education, (35.0%) of the study group and (48.0%) of the control group are secondary education. Regarding patient's occupation, 27.0% of the study group and 34.0% of the control group are housewives, 24.0% of the study group are farmers, and 34.0% of the control group are workers. Concerning work nature, (64.0%) of the study group and about (62.0%) of the control group both their work requires both physical and mental effort. In relation to work after disease, it is clear from the table that, (66.0%, & 55.0%) from study group and control group respectively work part of the time. Concerning family income, (88.0%) of the study group and control group has not enough family income while, (2.0%, & 4.0%) of the study group and control group respectively has enough family income.

Table (2): Reveals that, 69.0% of the study group suffering from fatigue, while in the control group, 64.0% suffering from fatigue and (88.0%) of them are suffering from anorexia. Concerning treatment coverage, (81.0% & 96.0%) of the study group and control group respectively, receive their treatment from government. As regards to treatment duration, (93.0% & 86.0%) of the study group and control group spent less than six months in their treatment. Regarding family history, 40.0% of the study group and 36.0% of the control group have positive family history of first degree.

Table (3): Shows that, there is a highly statistically significant difference between pre and post program mean score in the study group after implementation of the educational program in total knowledge with (p≤ 0.001), while there is no statistically

significant difference between pre and post program in the control group with (p<0.125).

Table (4): Shows that, there are highly statistically significant differences between pre and post program scores in the study group after implementation of the educational program in total practice scores with (p≤ 0.001**), while there are no statistically significant differences between pre and post program scores in the control group with (p ≤1.000).

Table(5): shows that, there was a highly statistically significant relation between the study group and control group regarding knowledge improvement with (p < 0.000), while thereis a statistically significant relation between age and knowledge improvement with (p < 0.011*).

Table (6): shows that, there is a highly statistical significant relation between the study group and control group and practice improvement with (p ≤ 0.000**), where there are no statistically significant relation between general characteristics and practice improvement.

Table (1): Percentage distribution of the study sample (study group and control group) according to their general characteristics (N=150).

Socio-demographic characteristics	Groups				p value	Chi-square
	Study group N= 100		control group N=50			
Age in years	N	%	N	%		
18 -	16	16.0	8	16.0	0.923	0.96
30-	26	26.0	17	34.0		
40-	40	40.0	17	34.0		
50 -	18	18.0	8	16.0		
Mean± SD	39.70± 7.74		39.560 ± 9.532			
Level of education						
Illiterate	25	25.0	13	26.0	0.309	3.591
Read & write	24	24.0	9	18.0		
Secondary	35	35.0	24	48.0		
Universal	16	16.0	4	8.0		
Occupation						
Employee	18	18.0	2	4.0	0.166	6.478
Farmer	24	24.0	11	22.0		
House Wife	27	27.0	17	34.0		
Worker	25	25.0	17	34.0		
Not Working	6	6.0	3	6.0		
Work nature						
Mental Effort	5	5.0	5	10.0	0.706	1.396
Physical Effot	25	25.0	11	22.0		
Both Mental and Physical	64	64.0	31	62.0		
Not Working	6	6.0	3	6.0		
Work All Time	23	23.0	17	34.0	0.244	4.169
Work Part Of Time	66	66.0	25	50.0		
Leave Work	5	5.0	5	10.0		
Not Working	6	6.0	3	3.0		
Family income						
Not Enough	88	88.0	44	88.0	44	88.0
Enough	10	10.0	4	8.0		
More Than Enough	2	2.0	2	4.0		

Table (2) : Medical history data of the studied groups. (N=150).

Health history	Groups				P value	Chi-square
	Study group N= 100		control group N=50			
	N	%	N	%		
Symptoms of # HCV						
Fatigue	69	69.0	32	64.0	0.538	0.379
Anorexia	64	64.0	44	88.0	0.002	9.524
Nausea	36	36.0	21	42.0	0.475	0.509
Fever	15	15.0	19	38.0	0.002	10.65
Abdominal Pain	35	35.0	7	14.0	0.007	7.292
Others	6	6.0	7	14.0	0.101	2.695
Treatment coverage						
Governmental	81	81.0	48	96.0	0.043	6.272
Work	1	1.0	0	0.0		
Health Insurance	18	18.0	2	4.0		
Treatment duration						
< 6 Months	93	93.0	43	86.0	0.165	1.93
> 6 Months	7	7.0	7	14.0		
Family History						
No	47	47.0	29	49.0		
Yes	53	53.0	21	42.0	0.204	1.614
If yes relative First degree	40	40.0	18	36.0	0.635	0.225
Second degree	13	13.0	3	6.0	0.19	1.714

Table (3): Comparison of Patient's total knowledge score between the study group and control group before and after program implementation. (N=150)

Total knowledge / Item	Groups		Chi-square	p- value
	Pre program	Post program		
	Mean ± SD	Mean ± SD		
Study group	13.24 ± 5.42	27.41 ± 8.25	2.557	0.001**
Control group	16.18 ± 4.92	16.96 ± 5.33	45.014	0.125

Highly significant (p<0.001**)

Table (4): Patient's total practice score before and after program implementation (N=150)

Total Practice / Item	Groups		Chi-square	p- value
	Pre program	Post program		
	Mean ± SD	Mean ± SD		
Study group	4. 480 ± 5.303	14.710 ± 3.641	0.158	<0.001**
control group	3.600 ± 5.010	4.660 ± 5.906	81.907	1.000

Highly significant (p<0.001)**

Table (5): Relation between general characteristics and knowledge improvement between study group and the control group. (N=150)

Item	Number	Knowledge improvement		Chi-square	P-value
		No.	**%**		
Group					
Control	50	4	8.0	60.024	0.000**
study	100	75	75.0		
Sex					
Male	93	53	57.0	1.834	0.176
Female	57	26	45.6		
Age					
< 30	17	4	23.5	11.109	0.011*
30-	55	32	58.2		
40-	60	37	61.7		
50+	18	6	33.3		
Marital Status					
Single	12	5	41.7	2.066	0.559
Married	122	66	54.1		
Divorced	4	3	75.0		
Widow	12	5	41.7		
Residence					
Rural	133	70	52.6	0.001	0.981
Urban	17	9	52.9		
Educational Level					
Universal	20	10	50.0	0.104	0.991
Secondary	59	31	52.5		
Read and write	33	18	54.5		
Universal	38	20	52.6		
Job					
Employee	20	16	80.0	8.842	0.065
Farmer	35	16	45.7		
House Wife	44	19	43.2		
Worker	42	24	57.1		
Not Working		4	44.4		

Highly statistically significant difference, (P<0.001).**
Significant (P ≤0.05*)

Table (6): Relation between general characteristics and practice improvement between study group and the control group. N=150

Item	Number	Practice improvement		Chi-square	P-value
		No	%		
Group					
control	50	2	4.0	67.21	0.000**
study	100	75	75.0		
Sex					
Male	93	51	54.8	1.204	0.273
Female	57	26	45.6		
Age					
< 30	17	9	52.9	0.237	0.971
30-	55	27	49.1		
40-	60	32	53.3		
50+	18	9	50.0		
Marital Status					
Single	12	7	58.3	1.359	0.715
Married	122	63	51.6		
Divorced	4	1	25.0		
Widow	12	6	50.0		
Residence					
Rural	133	68	51.1	0.020	0.888
Urban	17	9	52.9		
Educational Level					
Universal	20	10	50.0	2.77	0.428
Secondary	59	27	45.8		
Read and write	33	21	63.6		
Universal	38	19	50.0		
Job					
Employee	20	11	55.0	1.283	0.864
Farmer	35	20	57.1		
House Wife	44	20	45.5		
Worker	42	21	50.0		
Not Working		5	55.6		

Highly statistically significant, (P<0.001).**
Significant (P ≤0.05*)

DISCUSSION

Lankarani (2004) stated that, improving compliance with therapy can be enhanced by some measures such as patient education, close follow up, adequate treatment of side effects and minimizing dose changes. While, lack of expertise in the proper management of these side effects as well as lack of educating patient lead to higher rates of drug discontinuation or dose reduction with the resultant lower efficacy of treatment.

First: (Part I) General Characteristics of the studied patients:
The present study clarified that, more than two thirds of studied patients (study &control groups) at **age** group between 40 to less than 50 years, more than two thirds of patient in study group and more than half of patients in control group were male, the majority of the patients in the studied patients (study &control groups) were married while the minority of both groups were widow and single, and the majority of both group were from rural area while the minority of both groups were from the urban area.

Moreover, more than one third of the study group and less than half of control group receive **secondary education** while about one third for both groups was illiterate, about one third of study group were farmers, and about one third for the same group were workers while more than one third of control group were farmers and more than one third for the same group were workers, more than half of both groups (study & control) the work nature required both physical and mental effort.

Socio-demographic characteristics of present study proved that, the age of studied patients could be attributed to the chronicity of HCV infection in about 75.0% of patients while the majority of the patients in the study were married might be due to the same age groups of the studied sample. The possible explanation for the large percent that are infected from rural areas may be due to lack of health care centers, decrease population health awareness in Egyptian rural areas and patient's occupation as a farmer and liabilities for bilharzias infection.

The researcher opinion related to the **educational level** of the studied sample, might be due to the majority of patients were from rural areas with less attention to education that also explain study sample that had not enough monthly income to cover their needs, in addition to costs of required periodical investigations to follow the response of the treatment, which add a burden on the patients. This could be due to slightly near half of the studied sample were farmers and workers in addition to low socioeconomic status for most Egyptian population.

Part II: Medical History of the Studied Sample:

Concerning **the way of discovering disease**, about one third of the studied subjects (study &control groups) were discovered to have HCV disease by chance; this might be due to the majority of patients were from rural area and half of the patients were illiterate and farmers, so they did not seek medical care until the disease become worse.

The current study findings were supported by *Sterling and Bralow (2006),*who conducted study for extrahepatic manifestations of hepatitis C virus and found that, almost of patients with acute and chronic HCV infection are asymptomatic. This finding is in accordance with *McHutchison, Goodman, and Patel (2010*)**,** who observed that, more than one fourth of the studied patients were discovered to have HCV disease by symptoms.

As regard to **s**ymptoms, the most common symptoms were fatigue and anorexia; this was supported by *Abdel Hady (2011),* who studied the quality of life in patients with liver cirrhosis at Mansoura hospitals and clarified that, most of the participants suffer from abdominal pain, and more than half of them has loss of appetite. This finding is in disagreement with *Abd El-Shahed (2008)***,** who conducted study about factors affecting quality of life of patients with liver cirrhosis, found that, more than one third of the studied patients had abdominal pain, and most of them had dyspnea.

In relation to family history, two fifth of the study group and more than one third of the control group had a positive family history of chronic HCV with the first degree of relatives. This could be due to HCV is an infectious disease and may spread among the patient's family due to the illegal practice of universal health precautions. The

finding was supported by ***Schwarzinger, et al., (2004); Garieb (2008),*** who conducted study about chronic hepatitis C virus infection: does it really impact health-related quality of life?, they reported that, more than one fourth of the studied patients' relatives had family history of hepatitis C virus infection.

Concerning **patient's hospitalization,** more than two fifths of the study group and the control group had a positive history of hospitalization; this could be due to chronic disease and its complications, which need to seek medical care and sometimes require hospitalization. This finding is not in accordance with study conducted by **Garieb (2008),** about QOL and Associated Factors in Patient with C Viral Liver Disease, who mentioned that, the minority of the studied sample had a history of hospitalization.

Regarding to **surgical operations**, it was observed that, more than one third of the study group had past history of surgical operations compared to more than half of the control group; A finding that could be considered surgical operations, as a causative factor of disease. This finding is in accordance with ***Schwarzinger et al. (2004),*** who found that, less than one third of the patients had a history of previous surgical operations. However, ***Garieb (2008)*** mentioned that, the minority of the studied patients had a previous surgery.

As regard to **anti Bilharisial treatment**, about one quarter of the study group and two quarter of the control group had received anti Bilharisial treatment; this finding may could be due to the large number of patients from the rural areas and the patient's occupation as farmer. This finding is in agreement with previous study about effect of educational program for family have a member infected with HCV conducted by ***Al Husiny (2008),*** who found that, about two fifth of the studied patients had received previous anti Bilharisial treatment.

Regarding **blood transfusion**, the minority of the studied subjects had received blood transfusions; Blood transfusions are causative factors of HCV disease. ***Black and Hawks (2009),*** who found that, the minority of the studied patients had received blood transfusion, but on the other hand with ***Abd El-Shahed (2008),*** noticed that, more than one third of the studied patients had received blood transfusions.

Concerning the **history of dentist visits**, the majority of the study group and the control group had a positive history of dentist visits, this is due to the use of unsterile equipment and supplies in dentist clinics are causative factors of hepatitis C. This finding is in agreement *with Al Husiny (2008),* who found that, about two fifth of the studied patients had a history of dentist visits.

Second; Part II: The Impact of the Educational Program on the Patients' Knowledge Scores:

The results of the current study revealed that, there was a highly statistically significant difference in the total knowledge scores of patients with HCV among the study group with an extremely significant difference in mean knowledge scores after applying the education program. This finding could be explained by fear and anxiety of patients with hepatitis C about the disease process and treatment response. So these patients seek all required information and knowledge from a health care team based on their needs. The educational program prepared by the researcher to cover these patients knowledge.

Regarding the level of knowledge of the control group, there was no statistically significant difference between pre and post program. This is supported by *Elshikh (2003),* who conducted study about the impact of a protocol of care on physical responses and compliance among patients with congestive heart failure, he denoted that, almost three fourth of the control group had lacked some essential knowledge about their medication, action, dose, route, frequency, possible side effects and how to manage it, while the educational sessions in the group I had given a significant increase in their knowledge.

The current study results are in accordance with *Sandokji et al. (2003); Sarasin-Filipowicz (2010); Mohsen et al. (2011),* who stated that, enrichment of patient with knowledge about chronic hepatitis Cvirus, its treatment and management related interferon side effects seemed to have a positive effect on the patient's condition.

Noghabi et al., (2010) clarified that, continuous education and follow - up in chronic hepatitis C virus patients under antiviral therapy could greatly increase their adherence to treatment and reduce side effects, ultimately resulting in a better goal.

Furthermore, ***Kogure, et al., (2008)***conducted study on pegylated interferon plus ribavirin for genotype Ib chronic hepatitis C in japan mentioned that, patient's education and effective treatment are cornerstones for enabling patients' to adhere to treatment. In addition, lack of awareness about route of application results in early termination of treatment.

Part III: The Impact of the Educational Program on Patients' Practices Scores:

The results of the current study revealed that, there was a highly statistically significant difference in the study group after implementation of the educational program in total practice (p≤ 0.001), this is highly supported with ***Hegazy et al. (2013),*** who stated that, more than half of the studied sample had poor practices in pre- test and there was a highly statistically significant improvement post program.

Moreover, this is also going in the same line with ***Sandokji et al. (2003); Sarasin-Filipowicz (2010),*** who stated that, providing information to patients about treatment regimens, will increase their tolerance and compliance. These findings agreed also with ***El Hoseiny, (2005),*** who reported that, significant improvement of the practice of the studied patients with HCV was observed.

Regarding the level of practice for the control group, there was no statistically significant difference between pre and post program scores (p≤ 1.000), this is in the same line with ***Ibrahim and Madian (2011),*** who were denoted that, after program implementation the experimental group of HCV patients had a significant improvement of all behavior items and practice, while there is no statistical significance improvement for the control group.

Timby and Smith (2010) were mentioned that, education has a vital role in improving knowledge and practices of patients and consequently improving their QOL, this was highly supported by ***Nadeem et al., (2007)*** who were mentioned that, it's necessary to instruct patients with hepatitis C virus about dose adjustment during the treatment period.

CONCLUSION:

based on study findings,it can be concluded that :

After implementation of the educational program: There was a highly statistically significant improvement in total knowledge, practice for the study group. Where in the control group there were no statistically significant differences between pre and post program scores of the control group in total knowledge and practice.

The results of this study were concluded that, patients had a lack of knowledge and practices regarding hepatitis C, which reflected on patient's quality of life. The educational program, which was applied to the study group, has remarkable improvements in knowledge, practice, and subsequently in the patient's quality of life.

RECOMMENDATIONS

Based on the results of the current study, the following recommendations are suggested:

• Promotion and enhancement of the self-care modalities to the patient; a strict written instruction with pictures about disease process, allowed foods , rest and physical activities and follow up should be continued after termination of the treatment through a rehabilitation program.

• Awareness programs about HCV injection should be held periodically for high risk patients special attention should be given regarding teaching patients' family members who have an active role in prevention of disease transmission as well as in patient care to help them comply with the prescribed medical and nursing intervention.

• Prospective follow up studies are war warranted to develop and refine interventions to improve patient's adherence to treatment and prevent further deterioration, particularly with new antiviral therapies using oral direct acting drugs.

• Replication of the study using a large probability sample from different geographical areas to allow greater generalizability of the results.

• Recommendation concerning Ministry of Health (MOH) activities, hospitals and specialized centers' activities and increase awareness among the population at risk and general population.

• Suggested guidelines should be available to improve nurse's knowledge and performance toward advanced technology and management of patients with hepatitis C virus and encourage them to teach about everything they need about hepatitis C virus.

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تقيم المعرفة والممارسات لمرضى الالتهاب الكبدى الفيروسى (C) الخاضعين للعلاج بالانترفيرون والريبافيرن

شيماء محمد عبده رزق، ، ماجدة عبد العزيز محمد ،أيمن عبد الغفار الدسوقي ، دينا التابعي صبيح

ماجيستير التمريض الباطني والجراحي- جامعة المنصورة ، أستاذ التمريض الباطني والجراحي- كلية التمريض ـ جامعة عين شمس، أستاذ الباطنة العامة كلية الطب ـ جامعة المنصورة، مدرس التمريض الباطني والجراحي، كلية التمريض جامعة بورسعيد.

الخلاصة

الخلفية: يعتبر مرض الالتهاب الكبدي الفيروسي (سى) من أكثر الأمراض شيوعا في الدول المتقدمة والنامية وبالرغم من ذلك فالوضع في مصر يعتبرأكثرسوءاً، حيث تعتبر مصر الاكثر الإصابة بفيروس «سى» في العالم. **الهدف:** تهدف هذه الدراسة الي تقيم تأثير برنامج تثقيفى على جودة حياة مرضى الالتهاب الكبدى الفيروسى (سى)الخاضعين للعلاج بالانترفيرون والريبافيرن. وتم عمل دراسة متتابعة لمجموعات من المرضى لإجراء هذا البحث. ولقد تكونت عينة الدراسة من 150 مريض (100 مريض وهى مجموعة الدراسة و50 مريض وهي المجموعة الضابطة) مصابون بالالتهاب الكبدى الفيروسى (C) خاضعين للعلاج بالانترفيرون والريبافيرن، وتشمل أدوات جمع البيانات: استمارة استبيان والتى شملت بيانات عن خصائص المرضى الشخصيه،التاريخ الحالى والسابق وتقييم مستوي المعرفة والممارسات الخاصة بهؤلاء المرضى . وقد أظهرت نتائج الدراسة تحسن إيجابي إحصائي ملحوظ بعد تنفيذ البرنامج التعليمي للمرضى فى عينة الدراسة في معلومات المرضى وسلوكياتهم.أما بالنسبة للعينة الضابطة لم يكن هناك تحسن ملحوظ إحصائيا بالنسبة لمعلومات المرضى وسلوكياتهم.وأوصت الدراسة متابعة الابحاث العلمية الحديثة والدراسات المستقبلية التى تساعد على تحسن المرضى وذيادة إستجابتهم للعلاج.

الكلمـات الاسترشاديه :الالتهاب الكبدى الفيروسى (C) ،المعرفة ، السلوكيات ،الانترفيرون ، الريبافيرن، برنامج تعليمى،