

# Effectiveness of Structured Teaching Program on Home Care Management of HCV

## ABSTRACT

**Introduction-** Patients with hepatitis C includes the home care management, reducing the demands of the liver disease while promoting physical well-being, preventing complications of hepatitis, enhance self-concept, acceptance of situation, and providing information about the disease process, prognosis, and treatment.

**Aim-** A study to evaluate the effectiveness of structured teaching programme on knowledge regarding home care management to maintenance of health among patients of hepatitis C.

**Objective-** To assess the knowledge on home care management among patients of hepatitis C attending gastroenterology OPD at PGIMS Rohtak, evaluate the effectiveness of structured teaching program on knowledge regarding home care management among patients of hepatitis C and to find out the association between knowledge on home care management among patients of hepatitis C with demographic variable.

**Method-** A pre- experimental one group pre- test and post- test design was used to conduct the study among 100 patients of hepatitis C who were selected by convenient sampling technique for the study. Self -structured questionnaire was used to assess the knowledge score.

**Conclusion-** There are positive implications of the study not only fin home based management of HCV patients but also are in relation to nursing practice, nursing education, nursing administration and nursing research.

**Key Words-** Structured teaching programme, Effectiveness, Knowledge, Home care management, Hepatitis C Virus.

## INTRODUCTION

Patients with hepatitis C require home care management for promoting physical well-being, preventing complications of hepatitis, enhance self-concept, acceptance of situation, and providing information about the disease process, prognosis, and treatment. Hepatitis C virus is a leading cause of acute and chronic hepatitis, cirrhosis, and hepatocellular carcinoma, affecting approximately 130–150 million people worldwide. [1] The global prevalence of HCV infection in 2015 was in the range of 0.5% to 2.3%. [2] Population-level effectiveness depends on the number of hepatitis C virus patients receiving directly acting antiviral therapy (DAA). Although up to 75% of hepatitis C virus infected patients are treated at specialized clinics but some defer therapy. [3] Alcohol and drug abuse are among the most common reasons for therapy refusal. [4] The asymptomatic nature of the infection, cultural mistrust, and other psychosocial and medical reasons, may make hepatitis C virus patients hesitant to undergo DAA therapy. [5] To find possible factors, most studies were conducted with chart reviews or insurance system reviews.[6] Hepatitis C virus infection is considered a major cause of liver-related mortality and morbidity worldwide. [7] It is estimated by the World Health Organization that 1% of population is infected with HCV globally. [8] In 2016, the WHO released a global health sector strategy for eliminating viral hepatitis by 2030 that includes global and country-wide targets for the testing, treatment, and prevention of chronic hepatitis C. [9] Chronic HCV infection leads to a progressive disease, with 10%-20% of infected patients developing cirrhosis and approximately 7% of adult patients with cirrhosis progressing to hepatocellular carcinoma. [10] The lives of millions of adolescents worldwide are at risk because they do not have the information; skills, health services and support which they need to go through sexual development during adolescence. The epidemic of Hepatitis C

virus is now progressing at a rapid pace among young people. There has been a global increase in the burden of invasive infections in people who inject drugs. It is essential that patient-centred multidisciplinary care is provided in the management of these infections to engage people who inject drugs in care and deliver evidence-based management and preventive strategies. The multidisciplinary team should include infectious diseases, addictions medicine, surgery, psychiatry, pain specialists, pharmacy, nursing staff, social work and peer support workers to help address the co morbid conditions that may have contributed to the patient's presentation. [11]. As many as 12 million people may be chronically infected in India and most are unaware of it.[12] People with hepatitis C may also benefit from lifestyle changes, such as avoiding alcohol and maintaining a healthy weight. With proper treatment, majority can be cured from hepatitis C infection and live healthy life. WHO recommends therapy with pan-genotypic direct-acting antiviral for all adults with chronic hepatitis C infection. [13] HCV infection leads to chronic hepatitis in 50% to 80% of individuals. [14] Hepatitis B and C viruses are two common causes of chronic liver disease and permanent liver damage.[15] The hepatitis C virus is a blood borne virus and most infection occur through exposure to blood from unsafe injection practices, unsafe health care, unscreened blood transfusions, injection drug use and sexual practices that lead to exposure to blood.[16] India is one of the countries with the highest burden of viral hepatitis in India has an estimated 0.55 crore living with Hepatitis C infection. [17] Preventive strategies aim to reduce the exposure to HCV should be based on blood testing of individuals, screening of blood and blood products, sterilization of reusable equipment, destruction of potentially contaminated disposable instruments, and promotion of barrier methods of contraception to prevent sexually transmitted diseases. To increase the efficacy of these interventions, it is important that the main risk factors for HCV infection in different populations be known. [18]

## **AIM**

A study to evaluate the effectiveness of structured teaching programme on knowledge regarding home care management among patients of hepatitis C attending gastroenterology OPD at PGIMS Rohtak.

## **OBJECTIVES**

- ☐ To assess the knowledge on home care management among patients of hepatitis C attending gastroenterology OPD at PGIMS Rohtak.
- ☐ To evaluate the effectiveness of structured teaching program on knowledge regarding home care management among patients of hepatitis C.
- ☐ To find out the association between knowledge on home care management among

## **METHODOLOGY**

For the present study Quantitative research approach was used. Pre - experimental (one group pretest and post-test) research design was adopted for the present study.

## **VARIABLES UNDER STUDY**

Socio-demographic variables: Included personal data of the patients such as: Age, Socioeconomic status, Marital status, Education, Gender, Dietary habits, area of residence, Duration of diagnosis, Life style, Source of knowledge Type of co morbid disease, The family history of hepatitis C. Dependent variable: knowledge of patient independent variable: Structured teaching programme Research setting: Gastroenterology OPD at PGIMS Rohtak. Non-probability convenient sampling technique was adopted for the present study.

## **STUDY POPULATION**

One hundred patients of hepatitis C attending the gastroenterology OPD at PGIMS Rohtak. The inclusion criteria were confirmed hepatitis C patients who came for consultation in gastroenterology OPD at PGIMS Rohtak and gave consent for participating in the home care management. The exclusion criterion was admitted gastroenterology ward of PGIMS Rohtak and who did not give consent. Structured knowledge questionnaire was used which consists of two sections selected to collect the data for assessing knowledge regarding home care management of HEP- C patients.

### **Plan for Pilot study:**

Pilot study was conducted from 11/11/2024 to 16/11/2024 on patients of hepatitis C gastroenterology OPD at PGIMS, Rohtak. The purpose of the study was explained and verbal informed consent was obtained from study participants. Convenient sampling technique was adopted. Confidentiality was assured to all the study subjects. In the given time period of study, pre- and post-test was conducted by a structured knowledge questionnaire. Each written test was completed within 25-30 minutes.

### **Procedure for data collection for final study**

Permission was obtained from the Institutional Ethical Committee to conduct the study. Informed consent was obtained from all study participants in verbal and written form. Data was collected from January 1st to January 31st, 2025.

### **Findings of Pilot Study**

The descriptive statistics reveal key insights into the impact of the intervention on patients' knowledge of home care management for hepatitis C. The sample size of 10 ensures comparability between pretest and post-test observations. The pre-test scores showed a wide range (17) with a minimum score of 7 and a maximum of 24, resulting in a mean of 16.5. This indicates a substantial variation in baseline knowledge, reflected in the high standard deviation (6.502) and variance (42.278). In contrast, the post- test scores demonstrated a significantly narrower range (4), with scores spanning from 21 to 25. The mean score increased to 23.5, suggesting an improvement in knowledge following the intervention. Additionally, the reduced standard deviation (1.509) and variance (2.278) in the post-test indicate a more consistent understanding among participants.' The paired samples t-test results evaluated the effectiveness of a structured teaching program on patients' knowledge of home care management for hepatitis C. The mean difference between pretest and post-test

scores was -7.00, indicating an average improvement of 7 points in the post-test scores. The standard deviation of the paired differences was 5.416, with a standard error mean of 1.713, reflecting the consistency of the improvements across participants.

### **Plan of data analysis**

Frequency and Percentage was computed to describe the demographic data. Mean and Standard Deviation of scores were calculated from knowledge and awareness questionnaire. Paired t-test was used to assess the effectiveness of home care management of HEP-C patients. Chi-square test was used to associate the knowledge of patients with selected demographic variables.

### **Analysis of data**

The 14 patients (14%) were diagnosed to be suffering from HCV in last one month which represents the smallest group, likely reflecting new or recently identified cases. 28 patients (28%) were diagnosed within 1 to 3 months, that accounts for more than a quarter of the sample. A significant proportion, 41 patients (41%), were diagnosed between 3 to 5 months ago which is the largest group in the sample, indicating that many patients have a relatively recent but not very early diagnosis. 17 patients (17%) were diagnosed over 5 months ago which represents individuals with a longer history of the condition. 19 patients (19%) gained their knowledge from mass media. This group represents a smaller proportion, suggesting that while mass media plays a role, it is not the dominant source of information for these patients. The vast majority, 73 patients (73%), received their knowledge from healthcare providers which highlights the significant role that healthcare professionals play in educating patients about hepatitis C. 8 patients (8%) learned about hepatitis C through family members who had the illness. This is the smallest group, indicating that family experiences are less common as a source of knowledge. The data shows that healthcare providers (73%) are the primary source of information for patients about hepatitis C, reflecting the importance of medical guidance and education in managing the condition. While mass media and family illness play a role, their impact is less significant in comparison. These findings suggest that there is need of reinforcing patient education through healthcare providers. 17 patients (17%) had hypertension as a co-morbid disease which is moderate proportion of the sample. 8 patients (8%) suffered from diabetes mellitus, making it a less common co-morbid disease in this sample. 14 patients (14%) have both hypertension and diabetes mellitus. A significant majority of patients (61 individuals, 61%) have thyroid- related or other unspecified co-morbid diseases. 8 patients (8%) have a family history of hepatitis C which indicated that a small proportion of the patients in the sample have inherited or been influenced by family-related risk factors for hepatitis C. 92 patients (92%) do not have a family history of hepatitis C. This suggests that the majority of the patients' cases of hepatitis C are not linked to familial patterns. In Pre-test knowledge level, 34 patients (34%) had inadequate knowledge about home care management prior to the teaching program. This group represented a significant portion of the sample, indicating a clear gap in knowledge before the intervention. 64 patients (64%) had moderate knowledge about home care management. This suggests that while most patients had some understanding, it was insufficient or incomplete. Only 2

patients (2%) had adequate knowledge before the structured teaching program which highlights that very few patients had a solid understanding of home care management before the intervention. In Post-test Knowledge Levels, after the structured teaching program, 0% of patients had inadequate knowledge. This indicates a complete elimination of inadequate knowledge, showing the effectiveness of the teaching program. 22 patients (22%) had moderate knowledge after the program. This group decreased substantially compared to the pre-test, reflecting some improvement in understanding. 78 patients (78%) had adequate knowledge after the structured teaching program. This was a significant increase, showing that the majority of patients gained a solid understanding of home care management as a result of the intervention. The structured teaching program proved to be highly effective in improving knowledge on home care management among hepatitis C patients. The increase in the proportion of patients with adequate knowledge (from 2% to 78%) and the elimination of inadequate knowledge (from 34% to 0%) demonstrated the success of the intervention in enhancing the patients' understanding of how to manage their condition at home.

The descriptive statistics for the knowledge on home care management among hepatitis C patients before and after the structured teaching program revealed a significant improvement in patients understanding. In the pre-test, the mean score was 12.09, with a high standard deviation of 3.9, indicating that the patients had moderate knowledge but with considerable variability in their understanding. The range of scores was 16, spanning from a minimum of 5 to a maximum of 21. After the teaching program, the mean score increased to 21.88, reflecting a substantial enhancement in knowledge. The standard deviation decreased to 1.876, demonstrating that the scores were more closely grouped around the mean, signalling less variability in knowledge levels post-intervention. The range in the post-test was reduced to 9, with scores ranging from 16 to 25, further indicating that the program was successful in improving knowledge and standardizing it across the patient group. Overall, these statistics tell the effectiveness of the structured teaching program in improving hepatitis C patients' knowledge on home care management. The paired samples t-test was conducted to evaluate the effectiveness of the structured teaching program on improving the knowledge regarding home care management among hepatitis C patients. The mean difference between the pre-test and post-test scores was -9.790, indicating a significant improvement in knowledge after the intervention. The standard deviation of 4.174 suggests some variability in the improvement across patients, but the 95% confidence interval for the difference (-10.618 to -8.962) did not include zero, further supporting the conclusion that the change was significant. With a t-value of -23.5 and a p-value of 0.000, which is less than the 0.05 significance level, the null hypothesis was rejected, confirming that there was a statistically significant difference between the pre-test and post-test scores. These findings indicate that the structured teaching program effectively enhanced the patients' knowledge of home care management. The results of chi-square tests to assess the association between pre-test knowledge on home care management and various demographic variables among hepatitis C patients showed that chi-square value is 5.29 with a p-value of 0.507, which is greater than 0.05, indicating that there is no significant association between pre-test knowledge and age. The chi-square value is 3.615 with a p-value of 0.164, which is also greater than 0.05, suggesting no significant relationship between pre-test knowledge and gender. The chi-square value is 11.214 with a p-

value of 0.082, which is slightly above the 0.05 threshold, indicating no significant association between pre-test knowledge and educational status. The chi-square value is 7.552 with a p-value of 0.273, which is above 0.05, suggesting no significant association between pre-test knowledge and occupation. The chi-square value is 2.106 with a p-value of 0.349, indicating that marital status does not have a significant impact on pre-test knowledge. The chi-square value is 1.905 with a p-value of 0.386, showing no significant association between pre-test knowledge and lifestyle (smoking or alcohol consumption). The chi-square value is 3.479 with a p-value of 0.176, suggesting that area of residence (rural or urban) does not significantly influence pre-test knowledge. The chi-square value is 6.709 with a p-value of 0.349, indicating no significant relationship between pre-test knowledge and the duration of hepatitis C diagnosis. The chi-square value is 4.166 with a p-value of 0.384, indicating no significant association between pre-test knowledge and the source of information about hepatitis C. The chi-square value is 2.997 with a p-value of 0.809, showing no significant association between pre-test knowledge and the type of co-morbid diseases. The chi-square value is 0.208 with a p-value of 0.901, indicating no significant relationship between pre-test knowledge and a family history of hepatitis C. All the p-values for the chi-square tests are greater than 0.05, suggesting that there is no significant association between pre-test knowledge on home care management and any of the demographic variables tested, including age, gender, educational status, occupation, marital status, lifestyle, area of residence, duration of diagnosis, source of knowledge, type of co-morbid disease and family history of hepatitis C. The effectiveness of the structured teaching program was evaluated through pre-test and post-test knowledge assessments. The pre-test results indicated that 34% of patients had inadequate knowledge, 64% had moderate knowledge, and only 2% had adequate knowledge regarding home care management. After the structured teaching program, the post-test results showed a significant improvement: 78% of patients had adequate knowledge, and 22% had moderate knowledge, with no patients retaining inadequate knowledge. The paired samples t-test confirmed a significant difference between pre-test and post-test scores, with a mean difference of -9.790 (p-value = 0.000), indicating the effectiveness of the educational intervention. Regarding the association between knowledge and socio-demographic variables, age was found to have a significant association with post-test knowledge, as older age groups showed better knowledge acquisition (Chi-square = 9.353, p-value = 0.025). However, there were no significant associations between knowledge scores and other socio-demographic factors such as gender, educational status, occupation, marital status, lifestyle, area of residence, duration of diagnosis, source of knowledge, type of co-morbid disease, or family history of hepatitis C. These findings highlight that the structured teaching program was effective in significantly improving knowledge, particularly among older patients. However, the socio-demographic factors, aside from age, did not play a significant role in determining the improvement in knowledge levels.

The results of chi-square tests to assess the association between post-test knowledge on home care management and various demographic variables among hepatitis C patients showed that chi-square value is 9.353 with a p-value of 0.025, which is less than 0.05, indicating a significant association between post-test knowledge and age. This suggests that age has an impact on the knowledge of home care management after the structured teaching program.

The chi-square value is 1.439 with a p-value of 0.23, which is greater than 0.05, indicating that there is no significant association between post-test knowledge and gender. The chi-square value is 5.052 with a p-value of 0.168, which is greater than 0.05, suggesting no significant relationship between post-test knowledge and educational status. The chi-square value is 0.746 with a p-value of 0.862, which is much greater than 0.05, indicating no significant association between post-test knowledge and occupation. The chi-square value is 0.457 with a p-value of 0.499, indicating no significant association between post-test knowledge and marital status. The chi-square value is 0.182 with a p-value of 0.67, suggesting no significant relationship between post-test knowledge and lifestyle (smoking or alcohol consumption). The chi-square value is 0.325 with a p-value of 0.569, indicating no significant association between post-test knowledge and area of residence (rural or urban). The chi-square value is 2.364 with a p-value of 0.5, indicating no significant association between post-test knowledge and the duration of hepatitis C diagnosis. The chi-square value is 1.148 with a p-value of 0.563, indicating no significant relationship between post-test knowledge and the source of information about hepatitis C. The chi-square value is 2.471 with a p-value of 0.481, indicating no significant association between post-test knowledge and the type of co-morbid diseases. The chi-square value is 0.046 with a p-value of 0.831, suggesting no significant relationship between post-test knowledge and family history of hepatitis C. The only significant association found was between age and post-test knowledge, with a p-value of 0.025. This suggests that age plays a significant role in post-test knowledge regarding home care management among hepatitis C patients. For all other variables, the p-values were greater than 0.05, indicating no significant associations between post-test knowledge and gender, educational status, occupation, marital status, lifestyle, area of residence, duration of diagnosis, source of knowledge, type of co-morbid disease, or family history of hepatitis C.

#### **KNOWLEDGE OF PATIENTS REGARDING HEP-C**

To achieve the first objective of this study, the respondents were assessed for their knowledge regarding HEP-C. The findings revealed that overall mean knowledge score of patients in the pre-test, the mean score was 12.09 and the standard deviation was 3.911. In pretest 34 patients (34%) had inadequate knowledge, 64 patients (64%) had moderate knowledge, 2 patients (2%) had adequate knowledge regarding hepatitis. In post-test the overall mean knowledge score of patients were 21.88 and standard deviation was 1.876. In post-test 34 patients (34%) had inadequate knowledge, 64 patients (64%) had moderate knowledge and 2 patients (2%) had adequate knowledge regarding HEP-C.

#### **ASSOCIATION OF KNOWLEDGE WITH THE SELECTED SOCIO-DEMOGRAPHIC VARIABLES**

The third objective of this study was to find out the association between knowledge with selected demographic variables: All the p-values for the chi-square tests are greater than 0.05, suggesting that there is no significant association between pre-test knowledge on home care management and any of the demographic variables tested, including age, gender, educational status, occupation, marital status, lifestyle, area of residence, duration of diagnosis, source of

knowledge, type of co-morbid disease and family history of hepatitis C. The only significant association found was between age and post-test knowledge, with a p-value of 0.025. This suggests that age plays a significant role in post-test knowledge regarding home care management among hepatitis C patients. For all other variables, the p-values were greater than 0.05, indicating no significant associations between post-test knowledge and gender, educational status, occupation, marital status, lifestyle, area of residence, duration of diagnosis, source of knowledge, type of co-morbid disease, or family history of hepatitis C. The paired samples t-test confirmed a significant difference between pre-test and post-test scores, with a mean difference of -9.790 (p-value = 0.000), indicating the effectiveness of the educational intervention. Regarding the association between knowledge and socio-demographic variables, age was found to have a significant association with post-test knowledge, as older age groups showed better knowledge acquisition (Chi-square = 9.353, p-value = 0.025). However, there were no significant associations between knowledge scores and other socio-demographic factors such as gender, educational status, occupation, marital status, lifestyle, area of residence, duration of diagnosis, source of knowledge, type of co-morbid disease, or family history of hepatitis C. These findings highlight that the structured teaching program was effective in significantly improving knowledge, particularly among older patients. However, the socio-demographic factors, aside from age, did not play a significant role in determining the improvement in knowledge levels.

## MAJOR FINDINGS OF THE STUDY

In this study, result shows that among 100 patients of hepatitis C majority of patients were in 39–48 years age group 44 patients (44%) indicating a potential age-related risk factor, in 29–38 years age 27 patients (27%), in above 49 years age 16 patients (16%) and in 18–28 years age 13 patients (13%). The data shows that males are more frequently affected by hepatitis C (57%) compared to females (43%) in this sample. The majority of 47 patients (47%) have completed secondary education, graduate 36 patients (36%) are graduates, postgraduate 15 patients (15%), while the proportion of illiterate individuals is minimal (2%). This distribution indicates that hepatitis C affects individuals across various educational levels but is most prevalent among those with secondary education. The highest proportion of hepatitis C patients (61%) is employed in private jobs, indicating this group may be more exposed to potential risk factors related to their work environment or lifestyle. Farmers (17%) and those in government jobs (13%) also represent notable proportions, while the unemployed group (9%) forms the smallest share. The data highlights that most hepatitis C patients 92 (92%) are married, and unmarried 8 patients (8%) are unmarried. The data shows that the entire patient sample is vegetarian 100 patients (100%), which may reflect regional, cultural or lifestyle characteristics specific to the population studied. Since no variation in dietary habits exists in this sample, dietary factors are unlikely to directly influence the prevalence of hepatitis C among these patients. The data shows that majority of 54 (54%) patients are smokers and 46 (46%) patients consume alcohol, indicating that both smoking and alcohol use are prevalent among patients with hepatitis C. The data shows that majority of hepatitis C is more commonly observed in rural residents 63 patients (63%) compared to urban residents 37 patients (37%). The majority of patients 41 (41%) were diagnosed between 3 to 5 months, in



1- 3 month 28 patients (28%), in above 5 month 17 patients (17%), and 0 – 1 month 14 patients (14%). The data shows that majority of healthcare providers 73 patients (73%) are the primary source of information for patients about hepatitis C, in mass media 19 patients (19%) and family illness 8 patients (8%). The data shows that majority of 61 patients (61%) of patients have thyroid-related or other co- morbid conditions, in hypertension 17 patients (17%), hypertension / diabetes mellitus 14 patients (14%) and diabetes mellitus 8 patients (8%). The data shows that the vast majority (92%) of hepatitis C patients in this sample do not have a family history of the disease, and 8 patients (8%) have a family history of hepatitis C. Regarding the association between knowledge and socio-demographic variables, age was found to have a significant association with post-test knowledge, as older age groups showed better knowledge acquisition (Chi-square = 9.353, p-value = 0.025). However, there were no significant associations between knowledge scores and other socio-demographic factors such as gender, educational status, occupation, marital status, lifestyle, area of residence, duration of diagnosis, source of knowledge, type of co-morbid disease, or family history of hepatitis C. These findings highlight that the structured teaching program was effective in significantly improving knowledge, particularly among older patients. However, the socio-demographic factors, aside from age, did not play a significant role in determining the improvement in knowledge levels. The paired samples t-test confirmed a significant difference between pre-test and post-test scores, with a mean difference of -9.790 (p-value = 0.000), indicating the effectiveness of the educational intervention.

## **CONCLUSION**

This study aimed to evaluate the effectiveness of a structured teaching program on improving knowledge regarding home care management among patients with hepatitis C attending the gastroenterology outpatient department (OPD) at PGIMS Rohtak. The results of the socio-demographic profile and the evaluation of the program's effectiveness through pre-test and post-test knowledge assess.

## **NURSING IMPLICATIONS**

The implications of the study are in relation to nursing practice, nursing education, nursing administration and nursing research. In Nursing practice there can be development of structured teaching program self on HEP-C which can serve as guide for patients and helps in providing quality care to the HEP-C positive person. Patients' knowledge regarding HEP-C can help to provide better preventive care to themselves. A piece of literature generated by the present study will be used by future researchers. The findings of the present study will help the patients in motivating the patients to impart more in-depth health education regarding HEP-C, motivating the patients to seek more healthcare facilities available and to communicate the findings to the higher authorities to develop and implement better educational strategies. In field of Nursing education, it will re-in force the fact of providing knowledge regarding psychological aspect related to HEP-C. This study can be used as reference purpose. Health care provider can impart current information regarding HEP-C among patients. The methodology also gives guidelines to reach people for collecting information. The primary task is to help the patients to master at basic level and evaluate the

update content as an ongoing future. It enables the student to prepare themselves to give health education more effectively based on knowledge and social background of people. In relation to Nursing administration, our study will re-emphasize the need of evaluating the knowledge of staff taking care of person suffering from HEP-C. Nurse administrators should develop in- service education program so that recent change can be communicated to them and motivate them for caring in good manner. Nursing administrators can plan an in-service education program to take leadership role in educating patients regarding HEP-C. Nursing administrators inculcate interest in educating these teachers during their hospital visits and disseminate information on HEP-C. Nurses should take up responsibility to publish more information booklet and other health education packages. The nursing administrators should focus on health promotion through outreach and mass health education program, etc. health workers can be given training on HEP-C, the nursing administrators should train the patients and staffs in the handling the HEP-C positive patients while providing care. Nurse administrators should take up leadership roles in providing health education program to patients, so that patients can actively participate. Professional interaction between the nurse and the public will help to improve professional standards and create better image. In field of Nursing research, our study highlights the need of Nurse researcher to conduct interactive session regarding HEP-C among patients for promoting their knowledge. The study will serve as a variable reference material for future investigators. The finding of the study can be presented in various local, state or national conferences. Compared to other aspects of health, there is need for extended and intensive nursing research on the areas of preventive health care among patients using better methods of teaching and effective teaching materials. So that they can use their knowledge in every field of nursing.

## **RECOMMENDATIONS**

Based on the findings of the study, a study can be replicated on larger sample to validate the findings of the study. Similar study can be conducted for general population. A comparative study can be done on knowledge regarding patients in ward admitted and OPD attending patients. The study can be done in different districts and different states of India as the knowledge may vary. Experimental study can be done using structured teaching program on knowledge. The short-term training programme and its effectiveness can be analysed through a pre and post-test method

## **LIMITATIONS OF STUDY**

The study was confined to small number of subjects participating in the study. It was limited only to assess the knowledge of patients regarding HEP-C reporting in gastroenterology OPD at PGIMS, Rohtak only.

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