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Original Article

Effect of Educational Program on Emotional Distress of Hepatitis C Virus Patients Undergoing Antiviral Treatment Therapy

Naveed Sahar[1*], Adnan Yaqoob[1] and Muhammad Afzal[1]

[1]Lahore School of Nursing, Faculty of Allied Health Sciences, The University of Lahore, Lahore, Pakistan

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***Corresponding Author:**

Naveed Sahar
Lahore School of Nursing, Faculty of Allied Health Sciences, The University of Lahore.
naveedsahar739@gmail.com

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ABSTRACT

Majority of hepatitis C patients undergoing antiviral therapy have emotional distress which leads to face anxiety accompanies depression. Presence of increased anxiety and high depression may markedly increase fear among these patients which may lead to decreased willingness more refusal to have antiviral therapy. **Objectives:** To assess the effect of educational program on emotional distress of Hepatitis C virus patients undergoing antiviral treatment therapy. **Methods:** A one group pretest- posttest quasi experimental study was conducted in the Hepatitis C department of Jinnah Hospital Lahore, Pakistan. A purposive sample of n=32 patients was recruited. Adult patient, have a confirmed diagnosis of Hepatitis C, Age 18-60 years, on antiviral therapy for last 12 weeks were recruited. A, 6 weeks and 6 educational intervention sessions were provided. Each session consisted of 45-60 minutes. Validated tool of hospital anxiety and depression scale was used for data collection from participants to assess the emotional distress. Data were entered and analyzed using SPSS version 21.0. Comparison of emotional distress scores before and after the intervention was analyzed using a paired t sample. A P value ≤ 0.05 was considered statistical significant. **Results:** The study results revealed a significant effect of the educational intervention program on emotional distress (Pre interventional emotional distress score 30.66 ± 5.807 and post interventional emotional distress score 19.03 ± 5.433) among hepatitis C patients (p- value <0.001) **Conclusions:** It is concluded that Nursing education program has effect on emotional distress among HCV patients undergoing antiviral therapy.

INTRODUCTION

Chronic diseases of Liver such as Hepatitis especially, Hep C infection of liver is becoming a great concern for health care systems in all parts of the world. Developing part of the world, where countries are not managing it effectively like our own country Pakistan, the bad chronic effects of hepatitis c disease vary and the last complicated status is severe fibrosis occurrence or cirrhosis occurrence [1]. The World Health Organization (WHO) statistics suggested that around 3% population in the world has got the hepatitis c infection and disease. It is stated that more than 170 million populations are chronic carriers and if not managed will be at increased risk of developing liver complications such as cirrhosis of liver [2]. Treatment of chronic hepatitis C causes anxiety and depression which leads to unsuccessful completion of the full course of treatment [3]. More than 50% of the patients experience emotional distress with facing sever anxiety for strict follow up of treatment process. Emotionally distress patient exhibits symptoms like irritability, feeling anger and increased restlessness. Majority of such patients with Hepatitis c, receiving antiviral treatment report an increased emotional distress [4]. Depression among hepatitis c diseased patients with receiving antiviral treatment is found to be one very common side effect. Moreover, these patients also experience irritability, decreased energy level, lack of personal interest in things, and difficulty in sleeping or may be oversleeping [5]. Many countries in the world stated that people with Chronic Hepatitis C

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infections who are undergoing antiviral therapy may hold more stress and depression. Due to increased number of such patients they were reluctant to start the treatment of antiviral therapy. In case of proper education among the patients undergoing antiviral therapy, the treatment may have great improvement in successful treatment [6]. Patients who are having hepatitis C virus infection and undergoing through antiviral therapy may pass through some serious phases of amplified frustration, poor anger management and bigger depression. Presence of increased anxiety and high depression may markedly increase fear among these patients which may lead to decreased willingness more refusal to have antiviral therapy [7]. In various trials, a large number of patients with anti-viral therapy reported high level of anxiety and depression which further lead to suicidal thoughts or suicidal attempts. According to literature more than 33% hepatitis C patients undergoing antiviral therapy have depression. Many of the patients discontinued the treatment of antiviral therapy due to increased level of anxiety and depression [8]. This anxiety and depression many a times reach to a maximum level where several patients may discontinue the treatment or disturb or decrease the doses. This is because of the increased level of depression and decreased the coping level with the signs and symptoms and side effects of the therapy [9]. It is quite obvious from the practices of nurses that the advanced nurse practitioners or nurses with advanced skills and education have the opportunity to provide very skillful management and sound scientific education to all patients with chronic hepatitis C disease [19]. It is believed that with proper nurses' guidance and education the chance of hepatitis C disease and its associated complications are being eradicated [10]. Nurses are the source of support to patients and enable them to discuss and convey their issue to the health care team who can make suitable changes in prescription and provide other suggestions that are more helpful to handle these problems. Such preventive steps by nurses may lead patients towards healthy happy life [11]. A randomized control study was conducted at the National Liver Institute, Menoufiya, Egypt to find the effectiveness of a nurse-led teaching intervention and found a substantial reduction in Hepatitis C virus emotional distress after the intervention compared to before [12]. The positive benefits of psychosocial psychotherapy on emotional discomfort were supported by the another study's findings [13].

METHODS

A quasi experimental pre-post study design was used to carry on this study. This study was conducted at the Hepatitis C Clinic of Jinnah Hospital, Lahore, Pakistan. The study participants were all patients coming to Hepatitis C clinics meeting the inclusion criteria. Patients, who were Adult conscious with a confirmed diagnosis of Hepatitis C, Age 18-60 years old, on antiviral therapy, Both Male and female patients were recruited. Patients, who were had developed Liver Cirrhosis or Liver Carcinoma, having physical trauma, and having no emotional distress were excluded from the study. An educational program was developed with the help of different books, internet material and gastro experts. The educational intervention consisted of 6 sessions where each session consisted of 45-60 minutes. This was done through different learning methods like individual based lecture, groups' discussion and distribution of handout. To conduct this educational program, the participants were approached individually on the day of their follow-up at the outpatient department. The educational interventions plan started from January, 2022 till June 2022, where each study participant received all the education sessions one by one each month during their OPD visits. Emotional distress was measured by Hospital anxiety and depression scale: Developed by Lorig et al., [14]. This tool consists of total 14 items. Each item is scored on a scale of 0-3. Zero means not at all and 3 means all the times. Total questionnaire score ranges from (0) minimum to (42) maximum score. Emotional distress is operationally defined and measured as below: Score <14 or <33.33%= normal (no emotional distress). Score from 14-24 or 33.33%-57.13%=(mild emotional distress). Score >24-34 or 57.13%-80.95%= (moderate emotional distress). Score>34 or >80.95% (severe emotional distress). The hepatitis C patients coming for antiviral treatment were approached for data collection. To assess the emotional distress among the hepatitis C patients as a pre assessment, self-administered closed ended Urdu translated questionnaires were provided. After the intervention, the participants were asked to fill the data collection tool of Emotional distress again to assess the comparison. Data of the study participants were entered in statistical software SPSS version 21.0. Results of the study were presented as mean ± standard deviation through tables. Emotional distress pre and post score was compared using Paired t-test after checking for normality test assumptions. p-value < 0.05 as standard value was considered as significant value.

RESULTS

Table 1 below shows that 8 (25%) research participants were between the ages of 18-40 years' age group, 8 (25%) were 41-53 years of age and remaining 16(50%) were >53 years of age. It was also found that 15 (46.9%) participants were male and 17 (53.1%) were female participants. Furthermore, it is also shown that that in relation to marital

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status 71.9% of the study participants were married and on the other hand only 9 (28.1%) of the study participants were unmarried. Moreover, majority of participants i.e.21 (65.6 had monthly income between 17,000. 17 (53.1%) of the participants were uneducated, 9 (46.9%) of them were having education up to matric and no one was with education above level or above.

Age in (Years)	N(%)
18-40 years	8(25%)
41-53 years	8(25%)
> 53 years	16(50%)
Gender	
Females	17(53.1%)
Male	15(46.9%)
Marital Status	
Married	23(71.9%)
Unmarried	9(28.1%)
Monthly Income/PKR	
<17,000 PKR/month	8(25%)
17,000-30,000 PKR/month	21(65.6%)
>30,000 PKR/month	3(9.4%)
Education Status	
Uneducated	17(53.1%)
Up to Matric	15(46.9%)
Graduation and Above	0(0.0%)

Table 1: Demographic characteristics of participants (n=32)

Below table 2 shows the participants' emotional distress in the pre interventional and post interventional groups. Results of the study found that before the educational program a good majority 13 (40.6%) of the participants were having severe emotional distress and 12 (37.5%) had moderate emotional distress. After the intervention, there was no any participant with severe emotional distress whereas only 3 (9.4%) of the participants had moderate emotional distress.

Emotional Distress	Pre [n (%)]	Post [n (%)]
No Emotional Distress	0(0.0)	12(37.5)
Mild Emotional Distress	7(21.9)	17(53.1)
Moderate Emotional Distress	12(37.5)	3(9.4)
Severe Emotional Distress	13(40.6)	0(0.0)

Table 2: Emotional distress pre and after intervention

Table 3 below indicated that a paired sample t-test was used to evaluate the effect of educational intervention on participants' emotional distress. A very highly significant mean difference was found (+11.03) on emotional distress between pre and post interventional scores of Hepatitis C patients undergoing antiviral therapy t (8.537) =, p-value=0.00٠, with mean and SD (30.66 ± 5.807 vs. 19.03 ± 5.433). It is shown by the study results that interventional program has a significant effect on participants' emotional distress.

Variables	Pre-intervention Mean ± SD	Post-intervention Mean ± SD	t	p- value
Emotional Distress	30.66±5.807	19.03±5.433	8.537	.000

Table 3: Mean and standard deviation of emotional distress pre and after intervention

DISUSSION

The results findings of this current study revealed that the studied participants were having age in years as (46.25 ± 9.553). This finding is supported by the result of a previous study which assessed the effect of nursing educational program intervention on the emotional distress of the patients having hepatitis C infection and going through the treatment of antiviral therapy, where also the age average of participants was (40 ± 16.57893) years [15]. Also the finding of this current study is in line with a previous study, which carried out research to assess the effect had by nursing education protocols on selected depression issues caused by antiviral therapy among hepatitis C patients. Findings collected by Malky et al., study revealed similar results which showed that the average age of study participants was 41.06 ± 9.31 in years [16]. In contrast to the current study, Aas et al., study used a low age mean, slightly above than half (55.6%) from the intervention group were found to have the average age of more than 20 years and more than one third of the control group (38.9%) having an average age of 19.4 years [17]. The current study's findings showed another highlighted finding where a prominent and statistically significant decrease was found in the emotional distress among the participants in post interventional stage. Initially there were 0% who had no emotional distress and after the intervention 37.5% in post-program levels had no emotional distress. The result of a previous study revealed in support to the current study where it was revealed that the emotional distress had a good improvement in participants post educational program than pre educational program [15]. Furthermore, Malky et al., claimed that nursing intervention program was the key element for management of patients' emotional distress among hepatitis C infected patients [16]. Similar results were found by Aas et al., which found that after program implementation there was a highly statistically significant decrease in the severity of overall emotional distress compared to before the program [17]. The psycho-educational nursing program had a favorable impact on the psychological stress among the hepatitis C virus research patients, providing evidence in support of the current study [19]. Ahmed et al., obtained similar result in their research where significant changes between the intervention group were seen before and three months after program implementation (t1=4.25, P=0.002). Interactive digital-based education significantly reduced the emotional

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discomfort of the intervention group in all facets of hepatitis C self-management [20].

CONCLUSIONS

The most important component of the care strategy for hepatitis C virus patients receiving antiviral treatment therapy is the nursing education intervention program. Interactive healthcare Improvements in emotional distress is among the HCV outcomes that have been positively impacted by educational programs on self-management of hepatitis C. Additionally, it significantly contributes to bettering Hepatitis C control and encourages patients to lead healthier lifestyles. Finally, the educational program proved to be a valuable tool for enhancing HCV emotional distress and reducing emotional distress as evidenced by the favorable results recorded for the participant participate in intervention group.

Conflicts of Interest

The authors declare no conflict of interest

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