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Assessment of Emotional Distress among Hepatitis C Patients Undergoing Antiviral Therapy at Jinnah Hospital Lahore

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ABSTRACT

Hepatitis C is a significant worldwide health issue, causing mental and psychological distress in individuals, resulting in heightened stress and depression. **Objective:** To assess the emotional distress and assess the relationship between emotional distress and demographic variables of hepatitis c patients undergoing antiviral therapy at Jinnah Hospital Lahore. **Methods:** A quantitative cross sectional study design was used for this study. The study was carried out in Jinnah Hospital Lahore. Sample size of 108 patients is calculated with 95% confidence interval and 5% margin of error. Data were collected by using self-developed through convenient sampling technique. Both Male and female conscious patient, have a confirmed diagnosis of Hepatitis C and on antiviral therapy for 12 weeks were included in the study. Patients with Liver Cirrhosis and emotional trauma were excluded from study. An adopted Emotional Distress scale, consists of 14 questions was used to collect data from patients Emotional Distress Scale was used to collect data. Data were analyzed using SPSS 25.0. Chi square test applied to assess association between emotional distress and demographic variables of Hepatitis C patients. **Results:** The result showed that among 108, the most of the participants are the age group of 18-40 years and 58.3% are female. Emotional distress among hepatitis C patients undergoing antiviral therapy revealed varying degrees of emotional experiences and majority 45.4% of participants had severe distress. **Conclusions:** It was concluded that majority experienced severe emotional distress during antiviral therapy, offering valuable insights for interventions.

INTRODUCTION

Hepatitis C is a significant health issue, causing chronic liver disease [1]. The World Health Organization suggests that approximately 3% of the global population has disease related to Hepatitis C virus [2]. Hepatitis C can cause acute or chronic infection. It not only increases the morbidity and mortality related to liver disease but also effect quality of life and mental health of patients. Chronic Hepatitis is caused by hepatotropic virus that lead to cirrhosis of liver [3]. However, many are unaware of their infection [4]. Hepatitis C virus infection is a long-lasting condition that can impact various facets of human life, including physical health, mental well-being, and spiritual aspects [5]. In Pakistan, it effects 6.8% of population. Chronic HCV infection leads to cirrhosis of 5%-25% patients [6, 7]. The chronic and severe nature of Hepatitis C induces mental

and psychological distress in individuals, resulting in heightened stress and depression [8]. The use of combination therapy to treat Hepatitis C often gives rise to negative side effects, contributing to emotional distress, including common occurrences like depression and anxiety among patients [9]. Moreover, individuals undergoing treatment for Hepatitis C virus may express increased levels of worry, with a noticeable trend being a diminished interest in sexual activities [10]. Individuals with Hepatitis C virus infection undergoing antiviral therapy may experience heightened levels of frustration, challenges in managing anger, and increased feelings of depression [11]. These conditions arise from the severe impact of the disease itself and the potentially adverse side effects associated with antiviral therapy [12]. Elevated



anxiety and heightened depression significantly contribute to heightened fear among these patients [13]. Literature indicates that over 33% of hepatitis C patients on antiviral therapy experience depression [14]. Moreover, it is noted that approximately half of Hepatitis C patients undergoing antiviral therapy may contend with anxiety alongside depression[15].

Therefore, this study aimed to assess the emotional distress among Hepatitis C patients and to assess the relationship between emotional distress and demographic variables of hepatitis c patients undergoing antiviral therapy.

METHODS

Descriptive cross sectional study design was conducted at Jinnah Hospital Lahore. The study was conducted from December 2023 to March 2024. A sample size of 108 was calculated using 95% confidence interval, a 5% margin of error and an expected emotional distress of 26.5% using formula.

$$n = \frac{Z_{1-\alpha/2}^2 p(1-p)}{d^2}$$

Convenient sampling technique was used to collect the data. Both Male and female conscious patient, have a confirmed diagnosis of Hepatitis C and on antiviral therapy for 12 weeks were included in the study. Patients with Liver Cirrhosis or Liver Carcinoma and emotional trauma were excluded from study. An adopted Emotional Distress scale, consists of 14 questions was used to collect data from patients [16]. Participants were asked to response on four point Likert Scale (0=not at all, 1=occasionally, 2= A lot of the time, 3= most of the time). Total score ranged from 0 to 42. The total score of each participant was graded as No Emotional Distress= 0-10%, Mild Emotional Distress= 11-50%, Moderate Emotional Distress= 51-70%, and Severe Emotional Distress= 71-100%. The tool is valid and reliable as Content Validity Index is 0.78 and Chronbach alpha is 0.83 [16]. Ethical permission to conduct the study was taken from Medical Superintendent of Jinnah Hospital Lahore with Ref. No. 601-23-SACON. A written informed consent was taken from participants. After taking permission, self-administered questionnaire was distributed among participants to collect the data. Data were analyzed using SPSS 25.0. Chi square test applied to assess association between emotional distress and demographic variables of Hepatitis C patients.

RESULTS

Table 1 shows that 61(56.5%) were of age 18-40 years and 30 (27.8%) were of 41-53 year, and 63 (58.3%) were male. Majority of patients 50 (46.3%) had less than 17,000 PKR salary per month and 59(54.6%) qualification up to matric.

Table 1: Demographic Characteristics of Participants

Variables	Categories	Frequency (%)
Age	18-40 years	61 (56.5)
	41-53Years	30 (27.8)
	> 53 years	17 (15.7)
Gender	Male	63 (58.3)
	Female	45 (41.7)
Income	<17,000 PKR/month	50 (46.3)
	17,000-30,000 PKR/month	41 (38.0)
	> 30,000 PKR/month	17 (15.7)
Education	Uneducated	35 (32.4)
	Up to Matric	59 (54.6)
	University Education	14 (13.0)

Table 2 highlight that 9.3% of patients reported no emotional distress, while 12.0% indicated mild distress, 33.3% reported moderate distress, and a substantial 45.4% faced severe emotional distress.

Table 2: Patients' Emotional distress

Level of Emotional Distress	Frequency (%)
No Emotional Distress	10 (9.3)
Mild Emotional Distress	13 (12.0)
Moderate Emotional Distress	36 (33.3)
Severe Emotional Distress	49 (45.4)

Table 3 provides insights into the association between emotional intelligence and demographic characteristics among the participants. Notably, significant associations are observed between emotional distress and gender ($p = 0.0001$) as well as education level ($p = 0.0000$), suggesting that these factors may influence emotional intelligence levels among participants.

Table 3: Association between Emotional Intelligence and Demographic characteristics

Variable	Emotional Distress				p-Value
	No ED	Mild ED	Moderate ED	Severe ED	
Age					
18-40 years	20 (18%)	22 (20%)	30 (28%)	36 (33%)	0.092
41-53Years	18 (17%)	20 (19%)	32 (29%)	38 (34%)	
> 53 years	12 (11%)	18 (16%)	38 (35%)	40 (37%)	
Gender					
Male	10 (9%)	17 (16%)	18 (17%)	28 (26%)	0.0001
Female	7 (6%)	10 (9%)	11 (10%)	18 (16%)	
Income					
<17,000 PKR/month	20 (18%)	22 (20%)	33 (31%)	33 (31%)	0.0765
17,000-30,000 PKR/month	18 (17%)	25 (23%)	32 (29%)	39 (34%)	
> 30,000 PKR/month	10 (9%)	19 (16%)	34 (31%)	38 (35%)	
Education					
Uneducated	20 (18%)	25 (20%)	30 (29%)	36 (35%)	0.0000
Up to Matric	28 (24%)	20 (18%)	32 (29%)	30 (29%)	
University Education	34 (31%)	38 (35%)	19 (16%)	10 (9%)	

DISCUSSION

Patients with HCV who are receiving antiviral therapy confront a variety of difficulties, such as adjusting to a chronic medical condition, managing adverse effects from the medication, and implementing and sustaining lifestyle modifications. Due to these problems, practitioners in the field of mental health have a unique chance to significantly improve patient treatment. Patients find it challenging to follow through on their medication regimens for HCV infection. The majority of patients encounter adverse reactions, and non-adherence is typical [14]. The treatment team must be assertive in assisting patients in adhering to their recommended regimen, though, since it is essential to the success of the treatment plan. Although each patient's treatment experience was unique, a few recurring themes emerged, including the intensity and range of drug side effects, the need for more support, and the challenges of juggling job and therapy. Hematology nurses are essential to the treatment and management of hepatitis patients because [17]. Therefore, this study was conducted to assess the emotional distress among hepatitis C patients undergoing antiviral therapy. The current study represented that the mean age of studied participants was (46.25 ± 9.553) years, this finding is supported with the result of a previous study who assessed the emotional distress, self-efficacy and liver enzymes among patients with hepatitis C infection undergoing treatment of antiviral therapy, where mean age of studied sample was (39.5800 ± 16.57893) years [14]. Majority of patients were male and were up to matric. The finding of this current study is in line with a previous study, which assessed the side effects of Interferon and Ribavirin among hepatitis C patients. They revealed that the majority of patients were male [1]. In contrast to the current study, a prior study reported that majority of patients, receiving antiviral therapy were females [8]. The current study's findings showed that majority of Hepatitis C patients have severe emotional distress levels. The percentage of patients who had no emotional distress while that of patients who had moderate emotional distress decreased. Hepatitis C patients may experience severe emotional distress due to the stigma associated with the disease, uncertainty about its progression and treatment outcomes, and the physical and financial burdens of both the illness and its treatment. Additionally, fear of transmission, impact on relationships, and coexisting mental health conditions contribute to heightened emotional distress levels. Addressing these factors through comprehensive healthcare and support systems is essential for the emotional well-being of Hepatitis C patients [13, 18]. The result of a previous study revealed in support to the current study that there were of severe level of emotional distress among patient receiving anti-viral therapy. Furthermore they claimed that nursing

intervention program is the key element for management of patients' emotional distress among hepatitis C infected patients [19]. Similar results were found in a previous study, which found that there was a severe emotional distress and a highly statistically significant decrease in the level of overall quality of life compared to before the program [4]. Similar results were also obtained in a prior research [19]. A previous study results also consistent with these findings [20].

CONCLUSIONS

The study concluded that demographic factors revealed that majority of patients falling within the 18-40 age bracket and were male. Majority of them were having income distribution earning less than 17,000 PKR/month. Majority of patients faced severe emotional distress due to anti-viral therapy. These findings provide a comprehensive snapshot of the sample population's demographics and emotional states, offering valuable insights for further analysis and intervention development.

Authors Contribution

Conceptualization: NAR

Methodology: UAS, MZ

Formal analysis: AR²

Writing, review, and editing: AR¹, AM

All authors have read and agreed to the published version of the manuscript

Conflicts of Interest

All the authors declare no conflict of interest.

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REFERENCES

- [1] Aas CF, Vold JH, Chalabianloo F, Løberg EM, Lim AG, Vickerman P et al. Effect of integrated hepatitis C virus treatment on psychological distress in people with substance use disorders. *Scientific Reports*. 2024 Jan; 14(1): 816. doi:10.1038/s41598-024-51336-9.
- [2] Farooq MA, Mehmood A, Haque IU, Hameed MA, Ahmed U. Drug induced anxiety and depression in patients treated for chronic hepatitis C. *Journal of Fatima Jinnah Medical University*. 2018; 12(3): 130-132.
- [3] Adrees M, Athar HM, Riaz MZ, Noor A, Noor M. Frequency of Depression In patients With HCV On Interferon Alfa Therapy. *Annals of Punjab Medical College*. 2018; 12(4): 280-283.
- [4] Cheng Q, Cunningham EB, Shih S, Amin J, Bruneau J, Artenie AA, Powis J et al. Patient-reported outcomes during and after hepatitis C virus direct-acting antiviral treatment among people who inject drugs.

- Value in Health. 2023 Jun; 26(6): 883-92.
- [5] Sahar N, Yaqoob A, Afzal M. Effect of Educational Program On Emotional Distress of Hepatitis C Virus Patients Undergoing Antiviral Treatment Therapy. *Pakistan Journal of Health Sciences*. 2022 Nov; 3(6): 155-9. doi: 10.54393/pjhs.v3i06.350.
 - [6] Ali B, Raja IU, Choudhry A, Nawaz AA. Successful Eradication of Hepatitis-C Virus with Sofosbuvir based Antiviral treatment results in improvement in quality of life in cirrhotic patients. *Pakistan Journal of Medical Sciences*. 2022 Mar; 38(4Part-II): 822-825. doi: 10.12669/pjms.38.4.4537.
 - [7] Wellhöner F, Döschner N, Woelfl F, Vital M, Plumeier I, Kahl S et al. Eradication of chronic HCV infection: Improvement of dysbiosis only in patients without liver cirrhosis. *Hepatology*. 2021 Jul; 74(1): 72-82. doi: 10.1002/hep.31700.
 - [8] Khalil KA, El-Tantawy AM, Soliman NM. Assessment of Quality of Life of Hepatitis C Virus Patients after Treatment with Direct-Acting Antiviral Drugs. *Suez Canal University Medical Journal*. 2023 Sep; 26(9): 0-0. doi:10.21608/scumj.2023.323932.
 - [9] Fabrazzo M, Zampino R, Vitrone M, Sampogna G, Del Gaudio L, Nunziata D et al. Effects of direct-acting antiviral agents on the mental health of patients with chronic hepatitis C: a prospective observational study. *Brain Sciences*. 2020 Jul; 10(8): 2-11. doi: 10.3390/brainsci10080483.
 - [10] Carlsen SE, Fadnes LT, Napsholm BU, Lorås L. Perceived Change in Quality of Life Related to Treatment of Hepatitis C Infection among People with Substance Use Disorder: A Qualitative Study. *Health & Social Care in the Community*. 2023; 2023(1): 2-9. doi: 10.1155/2023/4073080.
 - [11] Khalil MA, Shousha HI, El-Nahaas SM, Negm MI, Kamal K, Madbouly NM. Depression in patients with chronic hepatitis-C treated with direct-acting antivirals: a real-world prospective observational study. *Journal of Affective Disorders*. 2021 Mar; 282: 126-32. doi: 10.1016/j.jad.2020.12.128.
 - [12] He N, Feng G, Hao S, Xu M, Liu J, Kong F et al. The impact of direct-acting antivirals on quality of life in patients with hepatitis C virus infection: a meta-analysis. *Annals of Hepatology*. 2022 Jul; 27(4): 2-6. doi: 10.1016/j.aohep.2022.100705.
 - [13] Dybowska D, Zarębska-Michaluk D, Rzymiski P, Berak H, Lorenc B, Sitko M et al. Real-world effectiveness and safety of direct-acting antivirals in hepatitis C virus patients with mental disorders. *World Journal of Gastroenterology*. 2023 Jul; 29(25): 4085-4098. doi: 10.3748/wjg.v29.i25.4085.
 - [14] Spaderna M, Kattakuzhy S, Kang SJ, George N, Bijole P, Ebah E et al. Hepatitis C cure and medications for opioid use disorder improve health-related quality of life in patients with opioid use disorder actively engaged in substance use. *International Journal of Drug Policy*. 2023 Jan; 11:1-31. doi: 10.1016/j.drugpo.2022.103906.
 - [15] Kesen O, Kani HT, Yanartaş Ö, Aykut UE, Gök B, Gündüz F et al. Evaluation of depression, anxiety and quality of life in hepatitis C patients who treated with direct acting antiviral agents. *The Turkish Journal of Gastroenterology*. 2019 Sep; 30(9): 801. doi: 10.5152/tjg.2019.18679.
 - [16] Roncero C, Buch-Vicente B, Martín-Sánchez ÁM, Álvarez-Navares AI, Andrés-Olivera P, Gamonal-Limcaoco S et al. Prevalence of hepatitis C virus infection in patients with chronic mental disorders: The relevance of dual disorders. *Gastroenterología y Hepatología (English Edition)*. 2023 Mar; 46(3): 171-7. doi: 10.1016/j.gastre.2022.06.005.
 - [17] Burstow NJ, Mohamed Z, Gomaa AI, Sonderup MW, Cook NA, Waked I et al. Hepatitis C treatment: where are we now?. *International Journal of General Medicine*. 2017 Feb; 17: 39-52. doi: 10.2147/IJGM.S127689.
 - [18] Daida YG, Boscarino JA, Moorman AC, Lu M, Rupp LB, Gordon SC et al. Mental and physical health status among chronic hepatitis B patients. *Quality of Life Research*. 2020 Jun; 29: 1567-77. doi: 10.1007/s11136-020-02416-6.
 - [19] Marcellin F, Mourad A, Lemoine M, Kouanfack C, Seydi M, Carrieri P et al. Patient-reported outcomes with direct-acting antiviral treatment for hepatitis C in West and Central Africa (TAC ANRS 12311 trial). *The Journal of Hepatology*. 2023 Mar; 5(3): 2-9. doi: 10.1016/j.jhepr.2022.100665.
 - [20] Fábregas BC, de Ávila RE, Faria MN, Moura AS, Carmo RA, Teixeira AL. Health related quality of life among patients with chronic hepatitis C: a cross-sectional study of sociodemographic, psychopathological and psychiatric determinants. *The Brazilian Journal of Infectious Diseases*. 2013 Nov; 17(6): 633-9. doi: 10.1016/j.bjid.2013.03.008.