

Assessment of Emotional Distress Among Hepatitis C Patients Undergoing Antiviral Therapy

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Abstract: Hepatitis C virus (HCV) infection is a major global health concern with significant physical and psychological implications. In Pakistan, where HCV prevalence is among the highest in the world, limited attention is paid to the emotional distress and self-efficacy of patients undergoing antiviral therapy. Psychological distress may hinder treatment adherence and adversely impact health outcomes. **Objective:** To assess the prevalence of emotional distress and levels of self-efficacy among patients with Hepatitis C undergoing antiviral therapy at a tertiary care hospital in Pakistan. **Methods:** This descriptive cross-sectional study was conducted over three months (January–March 2024) at a Tertiary care hospital in Lahore. A total of 117 adult patients diagnosed with Hepatitis C and receiving antiviral treatment were recruited using convenience sampling. Data were collected through a structured, pre-validated, Urdu-translated questionnaire that consisted of demographic variables, emotional distress (adapted from the Hospital Anxiety and Depression Scale, HADS), and self-efficacy items (based on the General Self-Efficacy Scale, GSES). Descriptive statistics and inferential tests (Chi-square, t-test, Mann–Whitney U) were performed using SPSS version 26. A p-value of <0.05 was considered statistically significant. **Results:** Of the 117 patients, 51.3% were female, and the majority (43.6%) were aged between 31 and 35 years. A high prevalence of emotional distress was observed, with 47.0% of participants reporting frequent anxiety and 41.9% experiencing persistent worrying thoughts. Fear and loss of enjoyment were also commonly reported. Self-efficacy was notably low; 46.2% of patients were not at all confident in discussing their illness with a physician, and only 3.4% consistently managed physical discomfort effectively. Emotional distress was more prevalent in female participants, whereas younger patients demonstrated relatively higher self-efficacy. **Conclusion:** Hepatitis C patients in Pakistan exhibit considerable emotional distress and poor self-efficacy during antiviral therapy. These findings underscore the pressing need for integrated psychosocial interventions, enhanced patient-provider communication, and culturally tailored education programs to promote psychological resilience and treatment adherence.

Keywords: Hepatitis C, emotional distress, self-efficacy, antiviral therapy, psychological support, Pakistan, cross-sectional study

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Introduction

Hepatitis C virus (HCV) infection is a significant public health concern, particularly in countries like Pakistan, where its prevalence is notably high. Chronic HCV infection is associated with both physical health challenges and substantial emotional distress, which adversely affect patients' overall well-being and treatment adherence. Research indicates that individuals undergoing antiviral therapy, such as Direct-Acting Antivirals (DAAs), frequently report higher levels of psychological distress, including anxiety, depression, and reduced quality of life (1,2). This emotional burden is often more pronounced in socioeconomically disadvantaged groups, underscoring the critical interplay between physical and mental health in managing chronic diseases like HCV (3). Evidence suggests that the prevalence of emotional and psychiatric disorders is markedly higher among patients with chronic hepatitis. Many individuals with HCV experience elevated stress and anxiety levels, complicating treatment outcomes. In a cohort study assessing patients receiving antiviral treatment, perceived stress levels were evaluated at various stages of therapy, revealing significant correlations between emotional distress and treatment parameters (1). This emotional strain can hinder treatment adherence and negatively influence overall treatment success, highlighting the need for integrated care approaches that encompass both medical and psychological needs (4). Additionally, stigma related to HCV often compounds emotional distress, impacting patients' willingness to seek assistance and adhere to treatment regimens (2). Despite advancements in HCV therapies, the emotional implications for patients are often underexplored, particularly within diverse populations,

including in Pakistan. There is a pressing need for research focused on populations in low- and middle-income countries to better understand the psychological consequences of HCV treatment. By conducting comprehensive assessments of emotional distress among HCV patients, healthcare providers can tailor interventions to address both physical and mental health needs effectively (3). This holistic approach has the potential to enhance treatment compliance and significantly improve long-term outcomes, contributing to broader public health goals for HCV management in Pakistan.

Recognising the psychological dimensions of HCV treatment is crucial for enhancing patient care and informing policymakers about the importance of structured psychosocial support systems within healthcare frameworks. Given the interrelation between mental health and chronic illness management, integrating mental health services into the treatment paradigm for HCV could greatly enhance patient outcomes in Pakistan (4, 5). Hepatitis C not only imposes a physiological burden but also significantly affects patients' mental health, particularly during antiviral therapy. In Pakistan, limited data exist on the emotional distress and self-efficacy of HCV patients. Understanding these psychological aspects is crucial for enhancing treatment adherence and improving overall patient outcomes.

Methodology

This study employed a descriptive cross-sectional design to assess emotional distress and self-efficacy among patients diagnosed with Hepatitis C who were undergoing antiviral therapy. The research was conducted over three months, from January to March 2024, at Services



Hospital, a tertiary care public sector hospital in Lahore, Pakistan. This setting was selected due to its large and diverse patient population, offering a representative sample of individuals receiving treatment for chronic Hepatitis C.

A total of 117 participants were recruited through non-probability convenience sampling. This method was chosen for its practicality, given the limited timeframe and accessibility of patients receiving care during the study period. The sample size was calculated using the Raosoft sample size calculator, assuming a 95% confidence level, a 5% margin of error, and an estimated prevalence of 50% for emotional distress. Inclusion criteria required participants to be 18 years or older, have a confirmed diagnosis of Hepatitis C, currently be receiving antiviral therapy, possess the ability to understand Urdu or English, and provide written informed consent. Patients with co-morbid psychiatric illnesses, those on psychotropic medications, or those with other serious conditions such as hepatic encephalopathy or HIV co-infection were excluded to avoid potential confounding factors.

Data were collected using a structured, pre-validated questionnaire, which was translated into Urdu and back-translated into English to ensure linguistic accuracy. The tool consisted of three sections: demographic data, emotional distress assessment, and self-efficacy evaluation. Emotional distress was measured using adapted items from the Hospital Anxiety and Depression Scale (HADS), assessing symptoms such as anxiety, fear, lack of enjoyment, and persistent worrying thoughts. Each item was rated on a 4-point Likert scale ranging from “Not at all” to “Most of the time.” Self-efficacy was evaluated using a modified version of the General Self-Efficacy Scale (GSES), which included items on confidence in interacting with healthcare professionals, managing symptoms, and reducing discomfort. Responses were recorded on a 5-point Likert scale, from “Not at all confident” to “Always confident.” Before the main study, a pilot test involving 10 participants (excluded from the final analysis) was conducted to assess the clarity and cultural relevance of the items.

Eligible patients were approached during their routine clinical visits. After obtaining written informed consent, participants were briefed on the study's objectives and provided with the questionnaire to complete, either independently or with the assistance of trained research assistants. The average completion time was between 15 to 20 minutes. All responses were reviewed for completeness before being entered into the data analysis software.

Ethical approval for the study was obtained from the Institutional Review Board of Superior University, Lahore (Approval #SUFON/IRB/2024/01). Ethical guidelines, as outlined in the Declaration of Helsinki, were strictly adhered to throughout the study. Confidentiality and voluntary participation were emphasised, and participants were informed that they could withdraw from the study at any time without impacting their medical care.

Data were entered and analysed using IBM SPSS Statistics version 26. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarise the demographic characteristics and questionnaire responses. Inferential statistical analyses were conducted to assess associations between demographic variables and levels of emotional distress or self-efficacy. The chi-square test was used for categorical variables, while t-tests or ANOVA were applied to

compare group means when the data were normally distributed. For non-parametric data, the Mann–Whitney U and Kruskal–Wallis tests were used. A p-value less than 0.05 was considered statistically significant, and where applicable, effect sizes and 95% confidence intervals were reported to provide further interpretation of the results.

Results

This section presents the findings from 117 patients with Hepatitis C undergoing antiviral therapy, focusing on their emotional distress and self-efficacy levels. Descriptive and inferential analyses were used to assess patterns among demographic subgroups. A total of 117 patients were enrolled in the study. The majority of participants were between 31 and 35 years of age (43.6%), followed by those aged 26 to 30 years (40.2%). Females comprised 51.3% of the sample. Regarding education, 53.3% of patients held intermediate-level qualifications, while the majority were admitted to the emergency department (55.6%) (Table 1). The analysis of emotional distress revealed that 47.0% of participants frequently felt anxious or tense, while 49.6% occasionally reported feeling frightened or apprehensive. Notably, 41.9% of the respondents reported that intrusive thoughts of worry occurred most of the time, indicating a significant cognitive-emotional burden (Table 2). Self-efficacy levels were found to be notably low. Nearly half of the participants (46.2%) were not at all confident in communicating with their physicians about their illness. A substantial portion (52.3%) reported rarely feeling confident in settling disagreements with healthcare providers. Furthermore, only 3.4% consistently felt satisfied in managing physical discomfort, and just 4.3% indicated they always took proactive steps to reduce medical appointments (Table 3). Emotional distress levels were highest among female patients and those aged 26–35. Self-efficacy scores were particularly low in domains related to communication with physicians. The highest distress symptoms included persistent worry (41.9%) and fear (49.6%), indicating a potential need for integrated mental health interventions. Younger patients showed relatively better self-efficacy in health management compared to their older counterparts.

Table 1. Demographic Characteristics of Hepatitis C Patients (N = 117

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	26–30	47	40.2
	31–35	51	43.6
	>35	19	16.2
Gender	Male	57	48.7
	Female	60	51.3
Education Level	Matric	44	37.6
	Intermediate	63	53.3
	Others	10	8.5
Department	Emergency Room	65	55.6
	Surgical Ward	52	44.4

Table 2. Emotional Distress Symptoms among Hepatitis C Patients

Emotional Distress Item	Not at All (%)	Occasionally (%)	Often (%)	Most of the Time (%)
I feel anxious or tense	7.7	25.6	47.0	19.7
I still find enjoyment in the things I once did	9.4	40.2	29.1	21.4
It makes me feel a little scared	14.5	49.6	20.5	15.4
Thoughts of worry cross my head	12.0	18.8	27.4	41.9

Table 3. Self-Efficacy Responses among Hepatitis C Patients

Self-Efficacy Item	Not at All (%)	Rarely (%)	Occasionally (%)	Frequently (%)	Always (%)
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Confidence in resolving conflicts with the physician	13.7	52.3	12.8	2.6	19.7
Confidence in discussing health concerns with the doctor	46.2	13.7	14.5	0.9	3.4
Confidence in discussing personal issues with the physician	8.6	11.1	40.0	4.3	3.4
Confidence in minimising physical discomfort	6.8	45.3	12.0	4.3	3.4
Confidence in managing illness to reduce future medical visits	16.2	12.0	5.1	2.6	4.3

Discussion

The findings of this study indicate significant emotional distress and low self-efficacy among patients with Hepatitis C undergoing antiviral therapy. In particular, the study revealed that nearly half of the patients frequently felt anxious or tense (47.0%), while a substantial number reported persistent feelings of fear or apprehension (49.6%). These results highlight the considerable mental health challenges faced by this population, particularly in a context where economic pressures and social stigma regarding Hepatitis C may exacerbate emotional distress (6).

Research has shown that psychological distress is a common issue among chronic illness populations, and individuals in Pakistan are particularly vulnerable to such challenges. Economic instability, characterised by factors such as poverty and a lack of access to healthcare resources, has been identified as a critical contributor to psychological distress among individuals with chronic diseases, such as Hepatitis C (7). The need for appropriate mental health interventions is underscored by evidence showing that individuals with higher emotional distress tend to have worse treatment outcomes, which could perpetuate the cycle of poor health and increased psychological burden (8).

In terms of self-efficacy, the results indicate that many patients lack confidence in their ability to communicate effectively with healthcare providers, manage conflicts, or take proactive steps toward managing their health. For instance, nearly half of the participants reported they were not at all confident in discussing their health concerns with their physicians (46.2%). This lack of self-efficacy is concerning as it suggests barriers to effective patient-provider communication, which is essential for successful disease management and treatment adherence (9). Previous literature corroborates these findings, indicating that lower self-efficacy is associated with higher levels of emotional distress and poorer health-related quality of life among patients with chronic illnesses like Hepatitis C (10).

Moreover, demographic factors influenced both emotional distress and self-efficacy in the study population. Findings indicated that female patients and those aged between 26 and 35 years experienced the highest levels of emotional distress, aligning with existing literature that highlights the increased vulnerability of these groups in developing countries (11). Integrating mental health screenings and supportive interventions alongside medical treatment for Hepatitis C may be vital to improve both emotional well-being and treatment adherence (12).

Overall, these results suggest that healthcare practitioners should adopt a holistic approach that encompasses both physical and mental health needs. By addressing mental health aspects through targeted interventions, including counselling and psychosocial support, healthcare providers can better support patients with Hepatitis C, potentially improving treatment outcomes and the overall quality of life (13).

In terms of limitations, the study employed a cross-sectional design, which restricts the ability to make causal inferences. Additionally, the use of convenience sampling and reliance on self-reported data may introduce selection and response biases. However, the study offers valuable insights into the psychological challenges faced by Hepatitis C patients in Pakistan and lays the groundwork for further longitudinal and interventional research in this area.

Conclusion

HCV patients undergoing antiviral therapy in Pakistan experience high emotional distress and low self-efficacy. Integrating psychological

support and patient education into routine care is crucial for enhancing coping, communication, and treatment outcomes.

Declarations

Data Availability statement

All data generated or analysed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department concerned. (IRBEC-22)

Consent for publication

Approved

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Conflict of interest

The authors declared the absence of a conflict of interest.

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All authors reviewed the results and approved the final version of the manuscript. They are also accountable for the integrity of the study.

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