

Journal of Social Sciences Research & Policy (JSSRP)



Exploring Awareness Levels and Health-Related Quality of Life of Hepatitis C Patients in Peshawar: A Community and Clinical Perspective

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ISSN: 3006-6557 (Online)

ISSN: 3006-6549 (Print)

Vol. 3, No. 2 (2025)

Pages: 439-449

Key Words:

Hepatitis C Virus, Health-Related Quality of Life (Life), Awareness

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Abstract: The current study titled "Exploring Awareness Levels and Health-Related Quality of Life of Hepatitis C Patients in Peshawar: A Community and Clinical Perspective" aimed to investigate the factors that create obstacles for Hepatitis C Virus (HCV) patients and adversely affect their Health-Related Quality of Life (HRQoL), as well as to examine the association between awareness levels and HRQoL. Employing a quantitative cross-sectional research design, data were collected from a representative sample of HCV patients in Peshawar. A scale proposed by researchers was used to accurately measure the HRQoL of HCV patients from Physical, Psychological and Social dimension. At Univariate analysis was conducted using frequency and percentage distributions, while bivariate associations were assessed using Chi-Square (χ^2) statistics. The reliability of the questionnaire was confirmed with an Alpha Cronbach internal consistency coefficient of 0.76, indicating acceptable reliability. Findings revealed that a substantial proportion of patients exhibited low awareness regarding HCV transmission, causative factors, and preventive measures, which corresponded with variations in HRQoL outcomes. Specifically, patients with inadequate knowledge of viral transmission, contaminated water exposure, and environmental contributors reported poorer quality of life. Conversely, general awareness regarding the viral nature of HCV or liver-related consequences did not show significant associations with HRQoL, highlighting that specific, practical knowledge plays a more critical role than general disease information. These results underscore the importance of targeted educational interventions to enhance patient knowledge and promote better health outcomes. Based on the study, it is recommended that community and clinical health programs prioritize HCV awareness campaigns, integrate patient counseling on transmission prevention, and provide psychosocial support to mitigate HRQoL deficits. Strengthening patient education through structured workshops, informational materials, and routine counseling could contribute significantly to improving both awareness and overall quality of life among HCV patients in Peshawar.

Introduction

Hepatitis C virus (HCV) infection remains a major global public health challenge due to its chronic

nature, silent progression, and long-term complications affecting both physical and psychosocial functioning. Characterized primarily as a blood-borne viral infection, Hepatitis C frequently advances to chronic liver disease, cirrhosis, and hepatocellular carcinoma when left untreated. Despite significant advancements in antiviral therapies, delayed diagnosis and insufficient awareness continue to exacerbate disease burden, particularly in low- and middle-income countries. Beyond biomedical outcomes, Hepatitis C profoundly influences patients' daily functioning, emotional stability, social participation, and overall sense of well-being, thereby necessitating an expanded focus on Health-Related Quality of Life (HRQoL) as a critical health outcome indicator (Alter, 2007).

Health-Related Quality of Life (HRQoL) is a multidimensional construct encompassing individuals' perceived physical health, psychological state, social relationships, and functional capacity in the context of illness. In chronic conditions such as Hepatitis C, HRQoL is often compromised not only by physiological symptoms—such as fatigue, pain, and cognitive impairment but also by stigma, anxiety, depression, and social isolation. Empirical evidence suggests that even asymptomatic HCV patients report diminished HRQoL, highlighting the psychosocial weight of diagnosis itself. Scholars argue that awareness regarding disease transmission, treatment options, and prognosis plays a pivotal role in shaping coping mechanisms and health perceptions, thereby directly influencing HRQoL outcomes (Ware & Sherbourne, 1992).

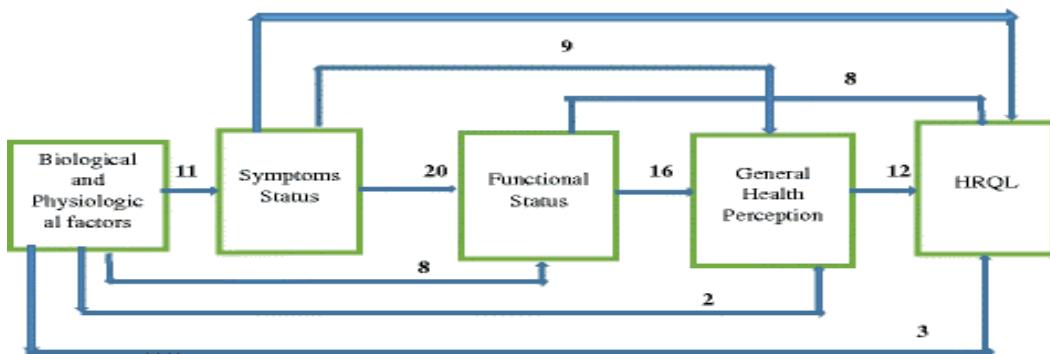
At the international level, Hepatitis C affects millions worldwide, with prevalence patterns varying significantly across regions due to disparities in healthcare infrastructure, screening practices, and public awareness. Studies from North America, Europe, and Australia indicate that patients with greater health literacy and access to accurate information demonstrate better treatment adherence and improved quality of life. Conversely, inadequate awareness often leads to delayed care, increased psychological distress, and poorer HRQoL scores. Longitudinal research conducted in Western populations underscores that successful antiviral treatment substantially enhances HRQoL; however, residual psychosocial challenges frequently persist, underscoring the necessity of integrated care models that address both clinical and quality-of-life dimensions (Foster et al., 1998).

In Pakistan, Hepatitis C represents one of the most pressing public health concerns, with prevalence rates among the highest globally. Factors such as unsafe medical practices, reuse of syringes, unregulated blood transfusions, and limited public awareness contribute significantly to widespread transmission. While biomedical research on Hepatitis C in Pakistan has expanded, investigations focusing on HRQoL remain comparatively scarce. Existing studies reveal that Pakistani HCV patients often experience severe impairments in physical vitality, emotional well-being, and social functioning. Cultural stigma, misconceptions about transmission, and inadequate patient education further intensify psychological distress and social withdrawal, thereby compounding HRQoL deterioration (Haider et al., 2021).

In districts such as Peshawar, located in Khyber Pakhtunkhwa, the intersection of limited healthcare resources, low awareness levels, and sociocultural constraints presents unique challenges for Hepatitis C patients. Understanding HRQoL within this localized context is essential for developing targeted interventions that move beyond clinical treatment to encompass patient education, psychosocial support, and community awareness. By examining the relationship between awareness and HRQoL among Hepatitis C patients in Peshawar, the present study seeks to contribute to a more holistic understanding of disease burden, informing evidence-based policies and patient-centered healthcare strategies in Pakistan and comparable settings (Younossi et al., 2014).

Model of Health-Related Quality of Life (HRQoL) proposed by Ferrans & others

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The revised causal model of Health-Related Quality of Life (HRQoL) proposed by Ferrans *et al.* (2005), building on the original framework of *Wilson and Cleary* (1995), presents a comprehensive and dynamic representation of how multiple domains interact to shape overall quality of life. The model illustrates a sequential yet interrelated pathway beginning with biological and physiological factors, which influence symptom status, subsequently affecting functional status, general health perceptions, and ultimately HRQoL. Unlike a strictly linear progression, the revised model emphasizes bidirectional and feedback relationships among these domains, acknowledging that HRQoL can, in turn, influence health perceptions, functional abilities, and even symptom experience. The inclusion of individual and environmental characteristics strengthens the model by recognizing the contextual factors that modify these relationships. Overall, the Ferrans *et al.* revision enhances the explanatory power of the original model by integrating complexity, reciprocity, and patient-centered perspectives, making it particularly suitable for chronic conditions such as Hepatitis C, where biological, psychological, and social dimensions collectively determine patients' lived health experiences.

Research Objectives

1. To assess the level of awareness regarding Hepatitis C (including transmission, treatment, and prevention) among Hepatitis C patients in Peshawar, Pakistan.
2. To examine the Health-Related Quality of Life (HRQoL) of Hepatitis C patients across physical, psychological, and social domains.
3. To analyze the relationship between awareness of Hepatitis C and Health-Related Quality of Life (HRQoL) among Hepatitis C patients in Peshawar.
4. To propose feasible recommendations for policy makers to tackle the issue at earliest.

Testable Hypotheses

H₁: There is a significant positive relationship between awareness of Hepatitis C and Health-Related Quality of Life (HRQoL) among Hepatitis C patients in Peshawar.

H₂: Hepatitis C patients with higher levels of awareness exhibit significantly better HRQoL compared to patients with lower awareness levels.

Literature Review

Health-Related Quality of Life (HRQoL) has emerged as a central outcome measure in chronic Hepatitis C virus (HCV) research due to the disease's pervasive effects on physical, psychological, and social functioning. Early clinical studies demonstrated that HCV patients experience substantial impairments in vitality, emotional well-being, and role functioning even in the absence of advanced liver pathology. Foster, Goldin, and Thomas (1998) revealed that reduced HRQoL among HCV patients cannot be solely attributed to hepatic damage, suggesting the involvement of psychosocial variables such as illness perception and disease awareness. These findings shifted scholarly attention from purely biomedical

indicators to patient-reported outcomes that capture lived experiences of chronic infection.

Subsequent research employing standardized instruments such as the Short Form-36 (SF-36) and the Chronic Liver Disease Questionnaire (CLDQ) confirmed consistently lower HRQoL scores among HCV patients compared to general population norms. Studies conducted in the United States and Europe found fatigue, cognitive impairment, and depressive symptoms to be the strongest predictors of HRQoL deterioration. Importantly, these impairments were more pronounced among patients with limited understanding of disease transmission, treatment options, and prognosis, highlighting awareness as a key determinant of subjective well-being (Ware & Sherbourne, 1992; Amodio et al., 2012).

Awareness in the context of Hepatitis C encompasses factual knowledge about the disease, perceptions of controllability, beliefs regarding stigma, and confidence in treatment efficacy. Research grounded in the Common-Sense Model of Illness Representation suggests that inaccurate or incomplete awareness leads to maladaptive coping strategies, including denial, avoidance, and social withdrawal. Petrak et al. (2001) demonstrated that patients with negative illness beliefs reported significantly lower HRQoL and higher psychological distress than those with accurate disease understanding, regardless of disease severity. These findings underscore the cognitive pathways through which awareness influences HRQoL outcomes.

However, awareness does not uniformly exert a positive influence on HRQoL. Several studies indicate that awareness of an HCV diagnosis may initially worsen quality of life due to fear, anxiety, and perceived stigma. Golden et al. (2006) reported that newly diagnosed patients experienced heightened emotional distress and reduced social functioning immediately following diagnosis, particularly in settings where HCV is strongly associated with moral judgment or deviant behavior. This paradox illustrates that awareness, when not accompanied by counseling and supportive education, may temporarily exacerbate HRQoL impairment.

Stigma plays a mediating role in the relationship between awareness and HRQoL. Qualitative and quantitative studies from Western countries reveal that awareness of HCV status often leads to anticipated or enacted stigma, negatively affecting interpersonal relationships and self-esteem. Forton et al. (2002) found that perceived stigma was significantly associated with depression and reduced social functioning among HCV patients, independent of clinical indicators. Thus, awareness embedded within stigmatizing social contexts can diminish HRQoL through psychosocial stress pathways.

The introduction of direct-acting antivirals (DAAs) transformed the clinical landscape of Hepatitis C, offering high cure rates and improved HRQoL outcomes. Longitudinal studies from North America and Europe demonstrate significant post-treatment improvements in physical functioning, vitality, and emotional health. Nevertheless, Younossi et al. (2014) emphasize that HRQoL gains are maximized among patients who receive adequate pre- and post-treatment education. Patients with higher awareness regarding treatment expectations and outcomes reported greater satisfaction and sustained HRQoL improvement after viral eradication.

In low- and middle-income countries, including Pakistan, the awareness–HRQoL relationship is shaped by structural inequalities, limited health literacy, and sociocultural misconceptions. Regional studies indicate that many HCV patients possess fragmented or incorrect knowledge about disease transmission and curability, fostering fatalistic attitudes and psychological distress. These factors contribute to poorer HRQoL scores compared to patients in high-income settings, despite similar clinical profiles (Hsu et al., 2012). The absence of structured awareness interventions further amplifies emotional and social impairment.

Methodology

The present study was conducted in Peshawar, with the primary objective of examining the relationship between awareness level as the independent variable and Health-Related Quality of Life (HRQoL) as the dependent variable among patients diagnosed with Hepatitis C. The study sought to generate empirical evidence regarding how variations in disease-related awareness influence the physical, psychological, and social dimensions of quality of life among Hepatitis C patients.

Research Design

A quantitative research design, employing a Cross-Sectional Survey Approach, was adopted to systematically investigate the association between awareness and HRQoL. This design was considered appropriate for identifying measurable patterns, relationships, and variations among the study variables within a defined population at a single point in time. The cross-sectional nature of the study enabled efficient data collection from a relatively large and geographically dispersed patient population, while providing a comprehensive snapshot of prevailing awareness levels and quality-of-life conditions among Hepatitis C patients in Peshawar.

Validity and Reliability

To ensure methodological rigor, the research instrument underwent systematic procedures to establish both validity and reliability. Internal consistency reliability was assessed using *Cronbach's Alpha*, which yielded a coefficient value of 0.76, indicating an acceptable and satisfactory level of reliability across all scale items. Content validity was ensured through expert consultation and pilot testing, confirming that the instrument adequately captured the core dimensions of Hepatitis C awareness and Health-Related Quality of Life. These procedures collectively enhanced the accuracy, consistency, and credibility of the data for subsequent statistical analysis.

Conceptual Framework

The conceptual framework of the study posits that awareness regarding Hepatitis C including knowledge of transmission, treatment, and prevention has a direct and significant influence on the Health-Related Quality of Life of Hepatitis C patients. Socio-demographic factors such as age and educational attainment were treated as control variables due to their potential influence on both awareness and HRQoL.

Independent Variable	Dependent Variable
Awareness level	Health-Related Quality of Life (HRQoL) of HCV Patients

Sampling Procedure

The total population comprised 5,880 Hepatitis C patients who were admitted to or visited the three selected tertiary care hospitals in Peshawar, namely Hayatabad Medical Complex (HMC), Lady Reading Hospital (LRH), and Khyber Teaching Hospital (KTH). Based on the population size, the required sample size was determined to be 361 respondents, in accordance with the sampling guidelines proposed by Sekaran (2003).

The sample was proportionally allocated to each hospital using the proportional allocation method, ensuring equitable representation of patients from all strata. Systematic sampling was employed for respondent selection, wherein the first respondent was chosen randomly and subsequent respondents were selected using a fixed skip interval of 16.

The proportional allocation formula applied was:

$$K = \text{Skip Interval} = \frac{\text{Population Size}}{\text{Sample Size}}$$

The formula of proportional allocation method is given below, $n_i = (N_i/N) \times n$ (Chaudry, 1996).

$$n_i = (N_i/N) \times n$$

Statistical Analysis

Data were analyzed using Statistical Package for Social Sciences (SPSS), Version 21. Descriptive statistics were computed to summarize the socio-demographic characteristics of the respondents and to assess levels of awareness and HRQoL. Inferential analysis was conducted using the *Chi-Square (χ^2) test* to examine the association between awareness level and Health-Related Quality of Life among Hepatitis C patients.

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

Measurement of Health-Related Quality of Life (HRQoL)

To measure Health-Related Quality of Life (HRQoL) in this study, a structured scale was employed that comprehensively captured key dimensions of well-being among HCV patients. The scale was designed to assess three major domains: *Physical Well-being*, *Psychological Well-being*, and *Social Well-being*, ensuring a multidimensional understanding of patients' quality of life. A total of 17 attributes were included in the instrument, covering specific indicators such as physical symptoms, emotional health, social interactions, and daily functional capacity. Responses were scored positively, with higher scores indicating better perceived quality of life. Based on the scoring system, patients who responded positively to 11 or more attributes were considered to have a sound HRQoL, those with 8–10 positive responses were classified as having moderate HRQoL, and respondents with fewer than 8 positive responses were regarded as experiencing a low quality of life. This structured approach allowed for precise quantification of HRQoL and facilitated the analysis of its association with awareness levels and other socio demographic factors in the study population.

Ethical Considerations

The study strictly adhered to established ethical standards throughout the research process. Informed consent was obtained from all participants prior to data collection, and respondents were assured of complete confidentiality and anonymity. Participation was entirely voluntary, and respondents were informed of their right to withdraw at any stage without penalty. Due consideration was given to participants' dignity, privacy, and emotional well-being, and all necessary precautions were taken to avoid psychological, social, or physical discomfort during data collection.

Results & Discussions

The below results demonstrate frequency & percentage distributions of HRQoL of HCV Patients. Similarly, at Bivariate level the statistical association is also demonstrated between level of awareness and HRQoL of HCV Patients.

Frequency and percentage distribution of respondents' views regarding Health-Related Quality of Life (HRQoL)

The tabulated findings reveal a pronounced deterioration in the *physical dimension* of Health-Related Quality of Life (HRQoL) among Hepatitis C patients. An overwhelming majority of respondents reported an inability to perform routine daily activities independently (90.6%) and to work efficiently as they did

prior to the onset of disease (90.3%), indicating severe functional impairment. Although most respondents (83.1%) denied having overt physical injuries, persistent pain and fatigue were evident, as 88.6% reported not being free from disease-related pain. This pattern suggests that HRQoL impairment in Hepatitis C is not necessarily linked to visible physical disability but rather to chronic symptoms such as fatigue, weakness, and pain, which are well-documented hallmarks of HCV infection. Similar conclusions have been drawn by Foster, Goldin, and Thomas (1998), who argue that functional limitation and pain significantly reduce perceived physical well-being even in patients without advanced liver disease, underscoring the importance of symptom burden in HRQoL assessment.

The *psychological* and *social domains* further demonstrate profound compromise, reflecting the multidimensional burden of Hepatitis C. Psychologically, high levels of anxiety (71.2%), low self-esteem (98.1%), stress (85.9%), and altered mood (91.1%) indicate pervasive emotional distress, despite a moderate proportion expressing hope for recovery (33.8%) and courage to overcome the disease (29.1%). These findings align with Petrak et al. (2001), who established strong associations between chronic HCV infections, anxiety, depression, and reduced psychological HRQoL. Socially, most respondents reported social isolation, reduced participation in daily social activities, and impaired social role performance, reflecting the stigmatizing and socially disabling nature of the disease. Notably, family and friends' support remained high (97.2%), suggesting that while immediate social networks provide emotional backing, broader social integration remains disrupted. This duality supports the conceptualization of HRQoL proposed by Wilson and Cleary (1995) and later refined by Ferrans et al. (2005), which emphasizes that biological symptoms cascade into functional, psychological, and social impairments, collectively shaping overall quality of life in chronic illness contexts such as Hepatitis C.

Table No. 1 Frequency and percentage distribution of respondents' views regarding Health-Related Quality of Life (HRQoL)

Attributes	Yes	No	Uncertain	Total
Physical Well-Being				
You can perform your normal routine/daily work without others' help	34(9.4)	327(90.6)	00	361(100)
You don't have any external or internal injury that obstruct your physical activities	300(83.1)	61(16.9)	00	361(100)
You can perform your work efficiently as you were doing before disease	35(9.7)	326(90.3)	00	361(100)
You got rid of pain caused due to disease	41(11.4)	320(88.6)	00	361(100)
Psychological Well-Being				
You feel that you have strong resistance against illness	68(18.8)	293(81.2)	00	361(100)
You don't feel mental fatigue of disease	73(20.2)	288(79.8)	00	361(100)
You have no stress due to disease	51(14.1)	310(85.9)	00	361(100)
You have the courage that you will overcome the disease	105(29.1)	254(70.4)	2(0.6)	361(100)
Your level of anxiety is high	257(71.2)	102(28.3)	2(0.6)	361(100)
You have high level of self-esteem	4(1.1)	354(98.1)	3(0.8)	361(100)
You have high hope for recovery	122(33.8)	217(60.1)	22(6.1)	361(100)
You have normal mood as you had before disease	00	329(91.1)	32(8.9)	361(100)
Social Well-Being				

You are not socially isolated due to disease	73(20.2)	288(79.8)	00	361(100)
You participate in daily social activities	72(19.9)	289(80.1)	00	361(100)
You perform your social role assigned to you	50(13.9)	311(86.1)	00	361(100)
You interact with others as always (e.g. before disease)	39(10.8)	322(89.2)	00	361(100)
You are supported by your family/friends	351(97.2)	10(2.8)	00	361(100)

Association between level of awareness and Health-Related Quality of Life (HRQoL) of HCV Patients

The association between Health-Related Quality of Life (HRQoL) and specific aspects of awareness regarding HCV reveals several significant and non-significant relationships. Notably, patients who correctly recognized that "HCV is a viral disease transmitted from an infected to a healthy person" demonstrated a significant association with HRQoL ($\chi^2 = 10.341$, $p = .035$), indicating that higher awareness of viral transmission correlated with variations in HRQoL scores. Similarly, beliefs regarding transmission through shared utensils also showed a significant association with HRQoL ($\chi^2 = 9.656$, $p = .047$), and awareness that HCV is usually caused by contaminated water ($\chi^2 = 24.934$, $p = .000$) as well as the perception that dust and vehicle pollution contribute to HCV ($\chi^2 = 41.446$, $p = .000$) were significantly associated with HRQoL. In contrast, understanding that HCV kills liver tissues ($\chi^2 = 3.986$, $p = .408$) or that it transmits through sneezing/coughing ($\chi^2 = 7.757$, $p = .101$) did not show significant associations. Awareness of sexual transmission of HCV also displayed a statistically significant relationship with HRQoL ($\chi^2 = 13.440$, $p = .009$), suggesting that patients who correctly identified this route of transmission experienced differences in quality of life outcomes.

These findings align with previous research indicating that specific knowledge about disease transmission and causative factors may influence patients' perceived quality of life more strongly than general or clinical awareness alone. McDonald et al. (2013) observed that understanding HCV transmission modes can impact HRQoL perceptions, especially in high-risk populations, while Spiegel et al. (2005) emphasized that psychosocial and cognitive awareness factors are critical determinants of HRQoL in chronic HCV patients. The significant associations noted in this dataset suggest that targeted education focusing on accurate transmission knowledge could potentially enhance patients' psychosocial well-being and perceived health status.

Table No. 1.1 Association between level of awareness and Health-Related Quality of Life (HRQoL) of HCV Patients

Level of awareness	Feeling	Health-Related Quality of Life among HCV Patients			Total	Chi-Square (P-Value)
		Good	Fair	Poor		
HCV is a blood-borne disease	Yes	33(73.3)	27(79.4)	226(80.1)	286(79.2)	$\chi^2=1.094$ (0.579)
	No	12(26.7)	7(20.6)	56(19.9)	75(20.8)	
HAC, HBC and HCV belong from same family	Yes	33(73.3)	25(73.5)	226(80.1)	284(78.7)	$\chi^2=1.663$ (0.435)
	No	12(26.7)	9(26.5)	56(19.9)	77(21.3)	
HCV is a viral disease and transmit through virus from infected person to	Yes	41(91.1)	22(64.7)	196(69.5)	259(71.7)	$\chi^2=10.341$ (0.035)
	No	2(4.4)	3(8.8)	27(9.6)	32(8.9)	
	Uncertain	2(4.4)	9(26.5)	59(20.9)	70(19.4)	

healthy one						
HCV kills the liver tissues	Yes	41(91.1)	34(100.0)	269(95.4)	344(95.3)	$\chi^2=3.986$ (0.408)
	No	0(00.0)	0(00.0)	1(0.4)	1(0.3)	
	Uncertain	4(8.9)	0(00.0)	12(4.3)	16(4.4)	
HCV spreads when people eat in same utensils with HCV patient	Yes	37(82.2)	24(70.6)	194(68.8)	255(70.6)	$\chi^2=9.656$ (0.047)
	No	4(8.9)	3(8.8)	11(3.9)	18(5.0)	
	Uncertain	4(8.9)	7(20.6)	77(27.3)	88(24.4)	
HCV transmits through sneezing and cough by the infected person when the water drops passing from infected to healthy person	Yes	25(55.6)	24(70.6)	178(63.1)	227(62.9)	$\chi^2=7.757$ (0.101)
	No	0(00.0)	3(8.8)	12(4.3)	15(4.20)	
	Uncertain	20(44.4)	7(20.6)	92(32.6)	119(33.0)	
HCV usually caused by contaminated water	Yes	31(68.9)	33(97.1)	256(90.8)	320(88.6)	$\chi^2=24.934$ (0.000)
	No	12(26.7)	1(2.9)	17(6.0)	30(8.3)	
	Uncertain	2(4.4)	0(00.0)	9(3.2)	11(3.0)	
Dusts and vehicles pollution both are responsible in causing HCV	Yes	20(44.4)	31(91.2)	205(72.7)	256(70.9)	$\chi^2=41.446$ (0.000)
	No	17(37.8)	2(5.9)	23(8.2)	42(11.6)	
	Uncertain	8(17.8)	1(2.9)	54(19.1)	63(17.5)	
From sexual intercourse HCV most probably spread when one partner is infected	Yes	29(64.4)	26(76.5)	180(63.8)	235(65.1)	$\chi^2=13.440$ (0.009)
	No	10(22.2)	0(00.0)	27(9.6)	37(10.2)	
	Uncertain	6(13.3)	8(23.5)	75(26.6)	89(24.7)	
	Uncertain	1(2.2)	0(00.0)	8(2.8)	9(2.5)	
	No	0(00.0)	1(2.9)	6(2.1)	7(1.9)	
	Uncertain	0(00.0)	3(8.8)	17(6.0)	20(5.5)	

Conclusion

The present study concludes that awareness of Hepatitis C plays a pivotal role in shaping the Health-Related Quality of Life (HRQoL) of affected patients in Peshawar. Findings indicate that patients with higher levels of disease-related knowledge demonstrate better physical functioning, psychological well-being, and social engagement compared to those with limited awareness. Inadequate understanding of disease transmission, treatment options, and prevention not only delays healthcare-seeking behavior but also exacerbates emotional distress and social isolation. The study further underscores that awareness, when supported by accurate information and counseling, serves as a protective factor against stigma and enhances overall quality of life. These results highlight the necessity of integrating awareness-based interventions into Hepatitis C management strategies to ensure comprehensive, patient-centered care.

Recommendations

- Structured and culturally appropriate awareness programs should be implemented in public hospitals to educate Hepatitis C patients about disease transmission, treatment availability, and preventive measures, thereby improving HRQoL outcomes.
- Healthcare facilities should incorporate psychosocial counseling services alongside clinical treatment to address stigma, anxiety, and depression, which significantly influence patients' quality of life.
- Continuous training should be provided to healthcare professionals to enhance effective communication and patient-centered education, ensuring that accurate information is conveyed in an empathetic and comprehensible manner.
- Government and public health stakeholders should initiate community-level awareness campaigns to reduce misconceptions and social stigma associated with Hepatitis C, thereby fostering a supportive environment that enhances patients' social well-being and overall quality of life.

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