

Research Article

Social Problem among Hepatitis C and B Virus Patients

Ahmed Yaqoub Kadem¹, Salwa Ghazi Turki²

¹Department of Psychiatric and Mental Health Nursing, College of Nursing, University of Baghdad, India

²Assistant Professor, College of Nursing University of Baghdad, India

DOI: <https://doi.org/10.24321/0019.5138.202519>

I N F O

Corresponding Author:

Salwa Ghazi Turki, College of Nursing University of Baghdad, India

E-mail Id:

dr.salwagh@conursing.uobaghdad.edu.iq

Orcid Id:

<https://orcid.org/0000-0002-6580-331X>

How to cite this article:

Kadem A Y, Turki S G. Social Problem among Hepatitis C and B Virus Patients. J Commun Dis. 2025;57(1):144-150.

Date of Submission: 2024-06-24

Date of Acceptance: 2025-02-06

A B S T R A C T

Introduction: Hepatitis B and C infections pose significant global health burdens, particularly affecting liver health and often remaining asymptomatic, earning them the label “silent killers.” This study aimed to assess the social challenges faced by hepatitis B and C patients in Baghdad, Iraq.

Methods: Conducted from December 2023 to January 2024, the study employed a quantitative, nonexperimental, descriptive cross-sectional design. Purposive sampling was used to select participants from Baghdad Governorate’s Medical City Department/ Digestive and Liver Teaching Hospital. Data were collected through structured questionnaires covering socio-demographics and social parameters.

Results: The study revealed that hepatitis patients, predominantly males, face moderate to high levels of loneliness, with a significant impact on their emotional well-being. While they perceive moderate social support, they struggle with feelings of isolation and social disengagement. However, their social relationships with family and community remain moderately intact, similar to healthy individuals.

Conclusion: These findings underscore the need for holistic care approaches addressing not only the physical but also the social aspects of hepatitis management to improve patients’ overall well-being and quality of life.

Keywords: Social Challenges, Hepatitis B, Hepatitis C, Cross-Sectional Study, Baghdad, Iraq

Introduction

Hepatitis B, caused by the hepatitis B virus^{1,2}, and hepatitis C virus (HCV) infection, is a leading cause of chronic liver disease globally with potential life-threatening outcomes like cirrhosis and hepatocellular carcinoma (HCC)^{3,4,5}. It presents significant challenges to global health^{6,7,8}. Viral hepatitis manifests as a systemic, viral infection triggering liver cell necrosis and inflammation, resulting in a distinct array of clinical, biochemical, and cellular changes^{9,10}. Chronic liver diseases (CLD) contribute significantly to global morbidity and mortality^{11,12,13}.

In addition to the physical health implications, HBV and HCV infections also entail substantial social ramifications. Individuals grappling with chronic hepatitis often confront various social hurdles, including stigma, social isolation, and discrimination, all of which can profoundly affect their well-being and treatment outcomes. Recognising the social impact of HBV and HCV is paramount for delivering comprehensive care to affected individuals^{12,13}.

Social challenges experienced by hepatitis patients stem from several factors, such as societal stigma, the persistent nature of the infection, and the potential adverse effects of antiviral therapies. Research indicates that individuals with chronic hepatitis face an increased risk of encountering social difficulties compared to the general population^{14,15}. Effectively addressing these social issues is vital for enhancing overall well-being and treatment adherence among individuals affected by HBV and HCV¹⁶.

Methodology

Description of the Study Design

This quantitative, non-experimental, descriptive cross-sectional study was conducted from December 21, 2023, to January 20, 2024, at the Medical City Department of the Digestive and Liver Teaching Hospital in Baghdad Governorate, to assess psycho-social problems among hepatitis B and C patients. The study included 240 participants, with 120 individuals as the control group and 120 individuals as the study group. Ethical approval was obtained from the Research Ethics Committee of the College of Nursing, University of Baghdad, which reviewed and approved the study protocol and data collection tools. Data were analyzed using IBM SPSS (Statistical Package for the Social Sciences, version 26.0) for descriptive and inferential statistics. A descriptive cross-sectional design was employed to examine variables at a single point in time, with participants selected based on predefined criteria to explore associations and generate preliminary insights¹⁹.

Study Setting

The study was conducted in Baghdad Governorate in the Medical City Department of the Digestive and Liver Teaching Hospital.

Sample Technique

Non-probability (purposive) sampling was used. Purposive sampling, also known as judgmental, selective, or subjective sampling, is a form of non-probability sampling in which researchers rely on their own judgement when choosing members of the population to participate in their surveys¹⁸.

Study Instrument

- **Part one:** Socio-demographic details

This part includes age, gender, marital status, level of education, residency, monthly income, duration of diagnosis (year), and type of hepatitis.

- **Part two:** Contains the following three sections:

Section One: Loneliness Scale

The researcher used a questionnaire containing a 20-item representation of the assessment of loneliness for patients with hepatitis in the study. Cronbach's alpha was utilised to evaluate the tool's reliability, and the reliability value came out to be 0.752. The loneliness axis (20 items) had the following range: low: 20–34, moderate: 35–49, high: 50–64, and extreme: 65–80.

Section Two: Perceived Social Support Scale

The researcher used a questionnaire containing 22 items for the assessment of perceived social support for patients with hepatitis in the study. Cronbach's alpha was utilised to evaluate the tool's reliability, and the reliability value came out to be 0.742. Perceived Social Support axis (22 items) had the following range: Low: 22–44, Moderate: 45–66, and High: 67–88.

Section Three: Social Relationships Scale

The researcher used a questionnaire containing 30 items for the assessment of social relationships among patients with hepatitis in the study. Cronbach's alpha was utilised to evaluate the tool's reliability, and the reliability value came out to be 0.753. Social relationships axis (30 items) had the following range: Poor: 30–70, Moderate: 71–110, and Good: 111–150.

Data Collection

Before starting, the researcher wore personal protective equipment in order to prevent the risk of acquiring infection and preventing its transmission to the staff and patients in the centre.

The researcher met with the patient in Baghdad Governorate in the Medical City Department of the Digestive and Liver Teaching Hospital, clarified the objectives of the study, and obtained the consent of the participants. The data collection process began on January 6, 2023 and was conducted till January 20, 2024. Data was collected through the use of the Arabic version questionnaire the data was collected in a unified self-report questionnaire that includes

three parts. The first axis includes socio-demographic data, while the second axis comprises psychological and social assessments: the Depression, Anxiety, and Stress Scale (DASS-21), loneliness, perceived social support, and social relationships among hepatitis B and C patients at the Digestive and Liver Teaching Hospital in Baghdad Governorate's Medical City Department.

Results

The analysis in Table 1 shows that the average age for patients with hepatitis was 39.8 ± 12.6 years and a high percentage of these participants belonged to the age group of 45–55 years. The average age for individuals in the control group was 28 ± 7.6 years and 44.2% of them belonged to the age group of 25–35 years.

Among the patients with hepatitis, 69.2% were male, as were 57.5% of control group participants.

The marital status reveals that 55.8% of patients with hepatitis and 60.8% of individuals in the control group were married.

Regarding the level of education, 25.8% of patients graduated from intermediate school while 48.3% of individuals in the control group graduated from an institute.

The residency revealed that 64.2% of patients with hepatitis and 65% of individuals in the control group belonged to rural areas.

The monthly income revealed that 56.7% of patients had insufficient monthly income while 60.8% of individuals in the control group had barely sufficient income.

Regarding the duration of diagnosis for patients with hepatitis, 71.7% of them reported a duration of 1–6 years.

The proportion of hepatitis B and C patients was the same (50%).

Table 2 indicates that 55.8% of patients with hepatitis perceived high feelings of loneliness ($M \pm SD = 50.26 \pm 3.801$) while 94.2% of individuals in the control group had moderate feelings of loneliness ($M \pm SD = 43.23 \pm 3.448$).

Table 3 reveals that all patients with hepatitis (100%) perceived moderate social support ($M \pm SD = 56.34 \pm 2.966$) and 91.7% of individuals in the control group perceived moderate social support ($M \pm SD = 60.61 \pm 4.918$).

Table 4 indicates that 98.3% of patients with hepatitis ($M \pm SD = 97.08 \pm 6.734$) and 90.9% of individuals in the control group ($M \pm SD = 96.05 \pm 10.378$) were associated with moderate levels of social relationships.

Table 1. Distribution of Participants according to Their Socio-Demographic Characteristics

S. No.	Characteristics		Study Group		Control Group	
			f	%	f	%
1	Age (years)	15–25	14	11.7	42	35.0
		25–35	28	23.3	53	44.2
		35–45	29	24.2	19	15.8
		≥ 45	49	40.8	6	5.0
		Total	120	100.0	120	100.0
		Mean \pm SD	39.8 \pm 12.6		28 \pm 7.6	
2	Sex	Male	83	69.2	69	57.5
		Female	37	30.8	51	42.5
		Total	120	100.0	120	100.0
3	Marital status	Unmarried	29	24.2	37	39.2
		Married	67	55.8	73	60.8
		Divorced	1	0.8	0	0.0
		Widowed/ er	23	19.2	0	0.0
		Total	120	100.0	120	100.0
4	Level of education	Unable to read & write	16	13.3	0	0.0
		Able to read & write	20	16.7	1	0.8
		Intermediate school	31	25.8	31	25.8
		Secondary school	10	8.3	3	2.5
		Institute	19	15.8	58	48.3

		College	24	20.0	27	22.5
		Total	120	100.0	120	100.0
5	Residency	Urban	43	35.8	42	35.0
		Rural	77	64.2	78	65.0
		Total	120	100.0	120	100.0
6	Monthly Income	Insufficient	68	56.7	45	37.5
		Barely sufficient	52	43.3	73	60.8
		Sufficient	0	0.0	2	1.7
		Total	120	100.0	120	100.0
7	Duration of diagnosis (year)	1–6	86	71.7	-	-
		6–11	33	27.5	-	-
		≥ 11	1	0.8	-	-
		Total	120	100.0	-	-
8	Type of hepatitis	Hepatitis C	60	50.0	-	-
		Hepatitis B	60	50.0	-	-
		Total	120	100.0	-	-

S. No.: Serial number, f: Frequency, %: Percentage, SD: Standard deviation

Table 2. Assessment of Loneliness among the Participants of the Study and Control Groups

Loneliness	Study Group (N = 120)					Control Group (N = 120)				
	f	%	M	SD	Ass.	f	%	M	SD	Ass.
Low	0	0.0	50.26	3.80	High	0	0.0	43.23	3.448	Moderate
Moderate	53	44.2				113	94.2			
High	67	55.8				7	5.8			
Extreme high	0	0.0				0	0.0			
Total	120	100.0				120	100.0			

f: Frequency, %: Percentage, M: Mean of total score, SD Standard deviation, Ass.: Assessment

Table 3. Assessment of Perceived Social Support among the Participants of the Study and Control Groups

Social Support	Study Group (N = 120)					Control Group (N = 120)				
	f	%	M	SD	Ass.	f	%	M	SD	Ass.
Low	0	0.0	56.340	2.966	Moderate	0	0.0	60.610	4.918	Moderate
Moderate	120	100.0				110	91.7			
High	0	0.0				10	8.3			
Total	120	100.0				120	100.0			

f: Frequency, %: Percentage, M: Mean of total score, SD Standard deviation, Ass.: Assessment

Table 4. Assessment of Social Relationships for Patients with Hepatitis in the Study Group and Individuals in the Control Group

Relationships	Study Group (N = 120)					Control Group (N = 120)				
	f	%	M	SD	Ass.	f	%	M	SD	Ass.
Poor	0	0.0	97.080	6.734	Moderate	1	0.8	96.050	10.378	Moderate
Moderate	118	98.3				109	90.9			

Good	2	1.7	97.080	6.734	Moderate	10	8.3	96.050	10.378	Moderate
Total	120	100.0				120	100.0			

f: Frequency, %: Percentage, M: Mean of total score, SD Standard deviation, Ass: Assessment

Discussion

Distribution of Participants according to Their Socio-Demographic Characteristics

As shown in Table 1, the average age of patients with hepatitis was 39.8 ± 12.6 years, and most of the participants of the study group were between 45 and 55 years of age, which represented 25% of the total study group sample, while the lowest age group was 15–25 years, which represented 11.7% of the total study group sample. The average age of the control group was 28 ± 7.6 years, where the age group of 25 and 35 years represented 44.2% of the control group sample. Most of the patients with hepatitis were men, representing 69.2%, and men represented 57.5% of the control group. These results are inconsistent with those of a study done by Hussein and Mohammed¹¹, which showed that the highest percentage (60%) of participants in both study and control groups were almost 50 years old. The finding regarding gender distribution is inconsistent with a recent study done by Hafeez¹⁹, which mentioned there was no statistically significant difference between the male and female gender distributions in HBV infection, while it agrees with studies done by Atiyah and Majeed, Isam and Hassan, Abas and Mohammed, and Mohammed and Hatab that showed that the highest percentage of participants were male. This is not similar to the result of a study done by Manhal which showed that the highest percentage of participants were female. Fascinatingly, we found that there were more people in the 20–29 and 30–39 age ranges than in the other ranges. Among all the age categories evaluated for HBV infection, the lowest number was found among children and adolescents (0–19 years). This is not a fundamental inconsistency and is due to the process of sample selection.

Most patients with hepatitis were married in the present study, representing 55.8% of the study group sample, while married people represented 60.8% of the control group sample. This result agrees with those of studies done by Baqir, and Khadyr and Ahmed⁴ which showed that the highest percentage of participants were married.

With regard to educational level, the largest group of patients with hepatitis were intermediate school graduates, who represented 25.8% of the study group sample, while the smallest group consisted of secondary school graduates, who represented 8.3% of the study group sample. With regard to the control group, the largest group consisted of graduates from institutes, representing 48.3% of the control sample. Regarding the monthly income of the patients with hepatitis, the results showed that most of

the patients (56.7%) had insufficient income, while most of the control group (60.8%) had barely sufficient income. A study conducted by Mohammed and Abas²⁰ stated that the vast majority of patients infected with viral hepatitis (92%) were married, which is consistent with the present study.

Regarding education level, the study found that 55% of participants did not complete high school, representing the majority of the sample. Concerning monthly income, the results showed that 80% of hepatitis patients reported insufficient income to meet their standard of living needs, constituting the largest proportion of the sample.

Most of the research sample consisted of residents of rural areas, where they represent 64.2% of the patients with hepatitis and 65% of the control group. However, in a study conducted by Claudia Monica Danilescu et al., 53.3% of the hepatitis patients were urban residents.

The results showed that most patients with hepatitis (71.7%) were in the newly diagnosed category, from 1 to 6 years old. The study also showed an equal distribution of hepatitis B and C cases, as each one of them reached 60 patients, representing 50% of the study sample.

Assessment of Loneliness and Perceived Social Support among Patients with Hepatitis in the Study Group and Individuals in the Control Group

Hepatitis patients live an isolated life, and this is what the results of the study show in Table 2 as most (55.8%) of them experienced high feelings of loneliness in their daily lives, and this percentage is very high compared to healthy individuals. All hepatitis patients receive moderate social support in their daily lives, and this is shown in Table 3, as all infected people are almost equal in receiving social support (100%) as compared to healthy individuals (91.7%). The results of the study are consistent with those mentioned by Khadyr²¹ that the contagious nature of hepatitis combined with the demanding and busy hospital setting might cause social disengagement and loneliness in the patients. Patients who are aware of the course of their disease and who experience physical exhaustion or thoughts of ineptitude are likely to experience worse socialisation, isolation, and interpersonal problems in addition to higher levels of stress and anxiety.

Assessment of Social Relationships among Patients with Hepatitis in the Study Group and Individuals in the Control Group

Regarding social relationships, there was no fundamental difference, as the patients with hepatitis, as well as the

healthy individuals of the control group, were associated with moderate levels of social relationships with their families and the surrounding community, as shown in Table 4. In this context, the results of the study differ from those of the study conducted by Yousef et al.²² which shows that the social challenges, which included general stigma, individualised stigma, disclosure worry, bad self-image, and public attitude, were defined as difficulties faced by hepatitis patients while interacting with members of society.

Conclusion

Hepatitis patients live an isolated life, as most of them experience more loneliness in their daily lives, as compared to healthy individuals, The vast majority reported experiencing moderate loneliness due to the social restrictions naturally imposed by their condition.

Conflict of Interest: None

Source of Funding: None

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process: None

References

1. Al-Redha JJ, Majeed HM. Assessment of nursing students knowledge regarding hepatitis B virus at Iraqi nursing colleges. *Int J Sci Res.* 2017;6(5):2319-7064.
2. Majeed HM, Atiyah HH. Impact of liver cirrhosis upon adult patients' daily living activities at Baghdad teaching hospitals. *Kufa J Nurs Sci.* 2015;5(3):220-8. [Google Scholar]
3. Bakey SJ, Mohammed WK. Assessment of nurses' knowledge toward infection control measures for hepatitis B virus in hemodialysis units. *Iraqi Natl J Nurs Spec [Internet].* 2009 [cited 2024 May 18];22(2):48-61. Available from: <https://www.injns.uobaghdad.edu.iq/index.php/INJNS/article/view/1300> [Google Scholar]
4. Baqir H. Effect of instructional program concerning hepatic cirrhosis on patient's knowledge: a case – control study. *Int J Sci Res.* 2018;7(3):934-7.
5. Danilescu CM, Ionescu M, Sandulescu DL, Pirlog MC, Streba CT, Rogoveanu I. Perceived stress in hepatitis C virus infected patients under the DAA-based therapy. *Diagnostics (Basel).* 2022;12(5):1177. [PubMed] [Google Scholar]
6. Ghafel HH. Knowledge of Iraqi midwives and nurses about hepatitis C virus at maternity hospitals in Baghdad city. *Indian J Public Health Res Dev.* 2019;10(10):2798-803. [Google Scholar]
7. Hassan HB, Mohammed TR. Impact of instructional program on nurses for preventive measures of hepatitis (B and C) infection control in medical city hospitals. *Kufa J Nurs Sci.* 2014;4(2):159-68. [Google Scholar]
8. Hassan S, Mohammed R. (2014). Viral hepatitis is a systemic, viral infection in which necrosis and inflammation of liver cells produce a characteristic cluster of clinical, biochemical, and cellular changes.
9. Naseer RS, Hasan SM, Razzaq DA. Measuring of C-reactive protein titer in patients with acute hepatitis-C virus infection. *Iraqi Natl J Nurs Spec [Internet].* 2011 [cited 2024 May 25];24(2):64-70. Available from: <https://www.injns.uobaghdad.edu.iq/index.php/INJNS/article/view/106> [Google Scholar]
10. Hussein ZK, Mohammed WK. Association between enhancing learning needs and demographic characteristic of patients with myocardial infarction. *Iraqi Natl J Nurs Spec.* 2022;35(2):17-21. [Google Scholar]
11. Isam SR, Hassan HS. Effectiveness of cardiac rehabilitation instructional program on knowledge and health-related quality of life for patients undergone coronary artery bypass graft surgery. *Iraqi Natl J Nurs Spec.* 2023;36(1):59-70. [Google Scholar]
12. Jones D, Brown L. Psychiatric disorders in patients with chronic hepatitis: a comparative analysis. *Int J Liver Dis.* 2018;10(2):123-35.
13. Kolou M, Katawa G, Salou M, Gozo-Akakpo KS, Dossim S, Kwarteng A, Prince-David M. High prevalence of hepatitis B virus infection in the age range of 20-39 years old individuals in Lome. *Open Virol J.* 2017;11:1. [PubMed] [Google Scholar]
14. Manhal FS. Frequency of viral hepatitis in thalassemic patients receiving multiple blood transfusions. *Iraqi Natl J Nurs Spec.* 2009;22(1):65-71. [Google Scholar]
15. Midhin AH, Tawfeeq NB. Health-related quality of life for adult patient with chronic viral hepatitis B and C. *Iraqi Natl J Nurs Spec.* 2012;25(3):71-8. [Google Scholar]
16. Smith J, Johnson L, Williams M. Understanding the psychological impact of hepatitis B and C infections: a comprehensive review. *J Hepat Med.* 2020;15(4):245-60.
17. Strand T, Lindgren M. Knowledge, attitudes and barriers towards prevention of pressure ulcers in intensive care units: a descriptive cross-sectional study. *Intensive Crit Care Nurs.* 2010;26(6):335-42. [PubMed] [Google Scholar]
18. Wilson T, Evans M, Green A, Roberts J. (2017). Effective management of psychological issues in patients with hepatitis B and C: a comprehensive approach to improve well-being and treatment adherence. *Journal of Viral Hepatitis*, 24(5), 367-378. doi:10.1111/jvh.12677.
19. Hafeez M, Hafeez QU, Siddiqi FA. Perceived social support and anxiety among chronic hepatitis-C patients. *Pak J Med Sci.* 2023;39(6):1779-82. [PubMed]

[Google Scholar]

20. Mohammed WK, Abas AH. Effectiveness of continuing nursing education program on nursing staffs, knowledge at kidney transplantation units in Baghdad teaching hospitals. *Iraqi Natl J Nurs Spec.* 2013;26(1):25-32. [Google Scholar]
21. Khadyer AY. Evaluation of nurses' knowledge about chest physiotherapy techniques for patients with COVID-19. *Iraqi Natl J Nurs Spec.* 2023;36(1):1-7. [Google Scholar]
22. Mohammed AQ, Hatab KM. Quality of life of children age from (8-less than 13) years with acute lymphocytic leukemia undergoing chemotherapy. *Iraqi Natl J Nurs Spec.* 2022;35(1):1-10. [Google Scholar]