Policy Research Journal
ISSN (E): 3006-7030 ISSN (P) : 3006-7022 Volume 4, Issue 3, 2026

ASSESSING HEPATITIS B AND C AWARENESS, AND PREVENTIVE PRACTICES IN THE ADULT POPULATION OF SADIQABAD, PAKISTAN: A CROSS-SECTIONAL SURVEY

Muhammad Zubair Yasin[1], Maryam Noor[2], Mian Muhammad Awais[3], Muhammad Zubair Zafar[*4]

[1]*Family Medicine Resident in Mian Muhammad Trust Hospital (UOL) Faisalabad*
[2]*Health Manager at MNCH 105 RB*
[3]*House Officer at Aziz Fatimah Hospital*
[*4]*Doctor at Allied Hospital Faisalabad*

[*4]*zafarzubairrana@gmail.com*

DOI: https://doi.org/10.5281/zenodo.24156814

Keywords
Hepatitis B; hepatitis C; awareness; preventive practices; vaccination; Sadiqabad; Pakistan

Article History
Received: 07 January 2026
Accepted: 09 March 2026
Published: 15 March 2026

Copyright @Author
Corresponding Author: *
Muhammad Zubair Zafar

Abstract

Background: *Community awareness and preventive behaviour influence the transmission of hepatitis B and C in Pakistan, yet little survey evidence exists for the general adult population of southern Punjab.*

Objective: *To assess the level of awareness of hepatitis B and C, the main sources of information and the preventive practices reported by adults in Sadiqabad, and to place these results beside published Pakistani surveys.*

Methods: *A descriptive cross-sectional questionnaire survey of 200 adults aged 18 years and above. Awareness was scored as the percentage of correct knowledge items and classified as good (≥75%), moderate (50–74%) or poor (<50%). Seven preventive practices were reported as frequencies with 95% Wilson confidence intervals.*

Results *(illustrative dataset): 34.5% had good, 43.5% moderate and 22.0% poor awareness. Television and radio were the most frequent information source (35.0%), whereas healthcare providers accounted for 19.0%. Always using a new or disposable syringe was reported by 71.0%, hepatitis B vaccination by 41.0% and screening by 35.5%, while 40.0% reported injections from informal practitioners. Reported vaccination was higher than in barbers, salon workers and an online general-public sample, and lower than in groups with medical training.*

Conclusion: *The dataset illustrates a gap between knowledge of safe practice and uptake of vaccination and screening, and a continuing reliance on informal injection providers. Health-worker-led education, vaccination and screening outreach would be the logical priorities if such a pattern were confirmed in real data.*

1. INTRODUCTION

Hepatitis B and C remain a clinical concern in southern Punjab. A hospital-based study in Rahim Yar Khan found anti-HCV antibodies in 365 of 2,325 people screened (15.6%) and hepatitis B surface antigen in 82 of 2,310 (3.5%) [1]. Hospital samples do not necessarily represent the community, but figures of this size show why

public awareness and prevention matter. Hepatitis B can be prevented by vaccination, whereas hepatitis C prevention depends on safe injection practice, sterilised instruments and a safe blood supply, so both rely partly on what people know and on the services they can reach.

Pakistani surveys show that awareness and prevention are uneven between groups. Among barbers in Hyderabad, only 36.6% knew that shaving instruments can transmit hepatitis, only 6.5% knew that a hepatitis B vaccine exists, and 3.2% had been vaccinated [2]. Among beauty salon workers in Karachi, 18.8% had adequate knowledge of hepatitis B and 24.1% of hepatitis C, and 17.2% were fully vaccinated [3]. In contrast, 79% of medical students in Karachi and 75.3% of healthcare workers in Lahore reported vaccination [4,5]. An online survey of the general public found that 58.5% did not know about hepatitis, 26.4% were vaccinated, 19.3% reported unlicensed medical procedures and 9.2% reported needle sharing [6]. Taken together, these studies indicate that vaccination is high where it is organised within training and low where it is not.

Information sources and informal health care also shape prevention. Barbers in Karachi reported disinfecting razors far more often (96%) than their clients confirmed (49%) [7], which suggests that self-reported and observed practice can diverge. Most existing surveys come from large cities and from occupational groups; none of the studies we identified described the general adult community of Sadiqabad. This study was designed to address that gap. Its objectives were (i) to classify the level of awareness of hepatitis B and C among adults in Sadiqabad, (ii) to identify their main sources of hepatitis-related information, (iii) to describe preventive practices including vaccination, screening and use of informal injection providers, and (iv) to compare the findings with published Pakistani surveys.

2. Methods

2.1 Study design and setting

A descriptive cross-sectional questionnaire survey was designed for adults living in Sadiqabad, district Rahim Yar Khan, southern Punjab, Pakistan.

2.2 Participants and sample size

Adults aged 18 years and above who were residents of the study area were eligible. A sample of 200 respondents was analysed. With 200 respondents, a proportion near 50% can be estimated with a 95% confidence interval of about ±7 percentage points, which was considered adequate for a descriptive, exploratory survey.

2.3 Questionnaire and variables

A structured questionnaire recorded knowledge items on transmission and prevention of hepatitis B and C, the primary source of hepatitis-related information, and seven preventive practices: always using a new or disposable syringe, avoiding shared razors or shaving tools, ensuring blood screening before transfusion, avoiding shared toothbrushes or personal items, receiving injections from an unlicensed or informal practitioner, ever being vaccinated against hepatitis B, and ever being screened or tested for hepatitis. Vaccination and screening were self-reported and were not verified against records.

2.4 Definitions

Awareness was taken as the percentage of correct answers on the knowledge items and classified as good (≥75%), moderate (50–74%) or poor (<50%). The primary information source and each practice were recorded as single responses. Use of an informal practitioner for injections was interpreted as a risky behaviour, so a higher percentage indicates poorer practice.

2.5 Statistical analysis

Data were analysed descriptively. Frequencies and percentages are reported for awareness and information source, and 95% Wilson confidence intervals are reported for each practice. Results were compared narratively, not statistically, with published Pakistani surveys, because those studies used different populations, sampling methods and definitions.

2.6 Data and ethical note

The dataset analysed in this manuscript is hypothetical and was created to illustrate the analysis and reporting plan; no human participants were involved. A real study would require approval from an institutional ethics committee and informed consent from every respondent, and the Methods and Results would then be rewritten from the actual data.

3. Results

3.1 Level of awareness

Table 1 shows that 34.5% of respondents had good awareness, 43.5% moderate awareness and 22.0% poor awareness. Thus about two in three respondents (78.0%) had at least moderate awareness, but only about one in three reached the threshold for good awareness.

Table 1. Overall level of awareness regarding hepatitis B and C (n = 200)

Level of awareness	n	%
Good awareness (≥75% correct)	69	34.5
Moderate awareness (50–74% correct)	87	43.5
Poor awareness (<50% correct)	44	22.0
Total	200	100.0

3.2 Sources of information

Television and radio were the leading source of hepatitis-related information (35.0%), followed by family and friends (29.0%). Healthcare providers were the main source for 19.0%, internet and social media for 12.0%, and print media and other sources for 5.0% (Table 2, Figure 1).

Table 2. Primary source of hepatitis-related information (n = 200)

Source	n	%
Television and radio	70	35.0
Family and friends	58	29.0
Healthcare providers	38	19.0
Internet and social media	24	12.0
Print media and other	10	5.0
Total	200	100.0

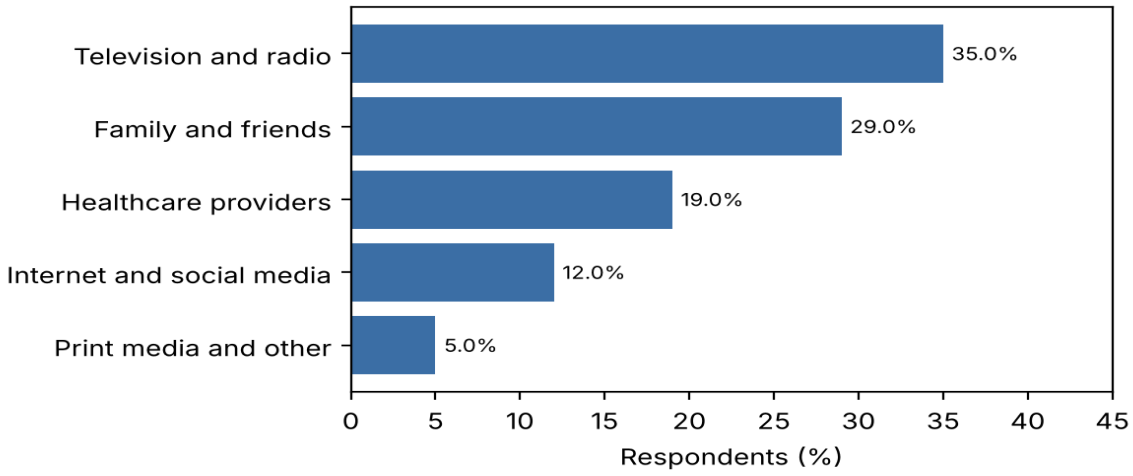


Figure 1. Primary source of hepatitis-related information (n = 200, hypothetical data).

3.3 Preventive practices

Table 3 gives the preventive practices. Always using a new or disposable syringe was reported by 71.0% and avoiding shared razors by 62.5%. Blood screening before transfusion (58.0%) and avoiding shared personal items (51.5%) were reported by just over half. Hepatitis B vaccination (41.0%) and screening for hepatitis (35.5%) were less common, and 40.0% reported injections from an unlicensed or informal practitioner.

Table 3. Preventive practices regarding hepatitis B and C (n = 200)

Practice	n	%	95% CI
Always uses new or disposable syringe	142	71.0	64.4–76.8
Avoids sharing razors or shaving tools	125	62.5	55.6–68.9
Ensures blood screening before transfusion	116	58.0	51.1–64.6
Avoids sharing toothbrush or personal items	103	51.5	44.6–58.3
Uses unlicensed or informal practitioner for injections*	80	40.0	33.5–46.9
Ever vaccinated against hepatitis B	82	41.0	34.4–47.9
Ever screened or tested for hepatitis	71	35.5	29.2–42.3

*Higher percentage indicates a riskier practice. Hypothetical data.

IEER
Institute for Excellence in Education & Research

3.4 Comparison with published Pakistani surveys

Table 4 places the vaccination and awareness findings beside surveys from other Pakistani settings. Reported vaccination in this dataset (41.0%) was higher than in barbers (2–3.2%), salon workers (17.2%) and an online general-public sample (26.4%), and lower than in medical students (79%) and healthcare workers (75.3%) (Figure 2). Definitions differ between studies (any reported vaccination in [4,5,6]; full vaccination in [3]), so the comparison is descriptive.

Table 4. Comparison with published Pakistani surveys

Study (setting, population)	Sample	Awareness or knowledge	HBV vaccination	Other findings
Jokhio et al. [2] (Hyderabad, barbers)	186	36.6% knew shaving instruments transmit hepatitis; 6.5% knew a vaccine exists	3.2%	34.9% discarded used blades in regular garbage
Shahid et al. [7] (Karachi, barbers and clients)	Not stated	Knowledge: barbers 51%, clients 32%	Barbers 2%, clients 7%	96% of barbers reported disinfecting razors;

				49% of clients confirmed
Bashir et al. [3] (Karachi, salon workers)	261	Adequate knowledge: HBV 18.8%, HCV 24.1%	17.2% (full)	42.5% had adequate practices
Rahman et al. [6] (online, general public)	980	58.5% did not know about hepatitis	26.4%	19.3% unlicensed procedures; 9.2% needle sharing
Ali et al. [5] (Lahore, healthcare workers)	381	Mean knowledge score 15.54 of 22	75.3%	80.3% had been tested
Khan et al. [4] (Karachi, medical students)	1,509	85% knew a vaccine is available	79%	Screened: HBV 49.4%, HCV 27.1%
This study (Sadiqabad, adults; illustrative)	200	34.5% good awareness; 22.0% poor	41.0%	40.0% informal injections; 35.5% screened

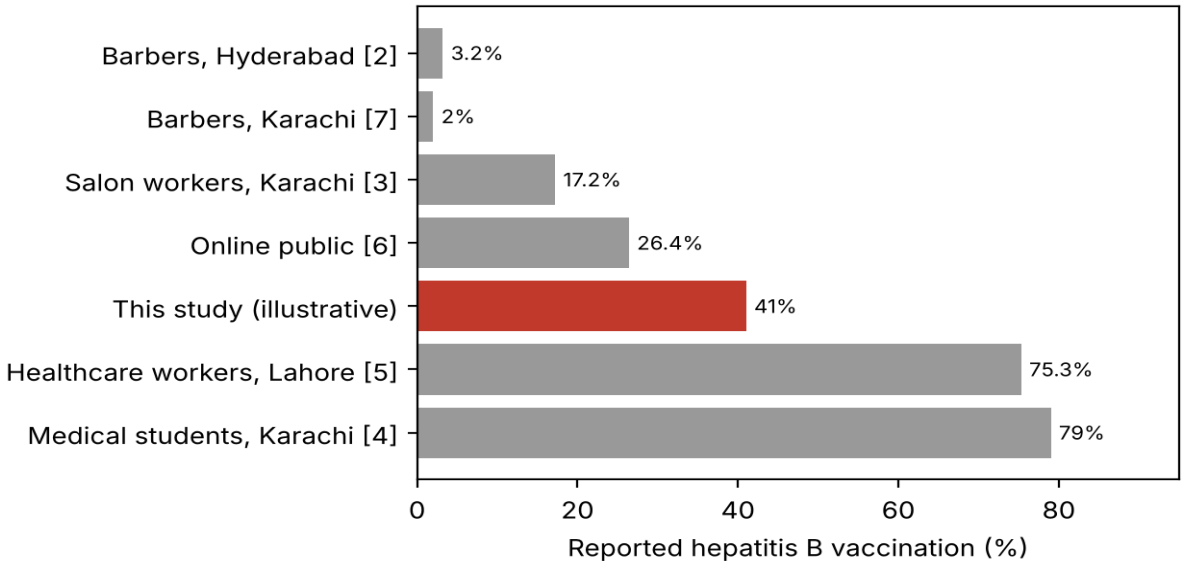


Figure 2. Reported hepatitis B vaccination in this illustrative dataset compared with published Pakistani surveys. Definitions and sampling differ between studies, so bars show range and not a formal comparison.

4. Discussion

In this illustrative dataset, awareness was mostly moderate, and a gap between awareness and practice is visible: 71.0% reported safe syringe use, but vaccination (41.0%) and screening (35.5%) were lower, and 40.0% still used informal practitioners for injections. Such a pattern would suggest that knowing about safe injection does not by itself remove exposure, probably because access, cost and trust in nearby

informal providers also drive behaviour. It would be consistent with national findings in which 19.3% of an online sample reported unlicensed medical procedures and 9.2% reported needle sharing [6], although the informal-practitioner figure here is defined differently and is higher.

Vaccination in this dataset (41.0%) falls between the low values reported for barbers and salon workers [2,3,7] and the high values reported for medical students and healthcare workers [4,5]. That ordering matches the idea that coverage follows organised vaccination in training and not exposure to risk: barbers handle shared sharp instruments yet only 2–3.2% reported vaccination [2,7]. It also shows that high coverage is achievable when vaccination is organised and expected [4,5]. Because the numbers here are invented, the position of this dataset within that range carries no meaning for Sadiqabad itself.

The information-source pattern would carry practical weight if confirmed. Mass media were the leading source (35.0%) and healthcare providers were named by only 19.0%, so messages on vaccination and screening might not be reaching people through the people best placed to offer them. The discrepancy reported by Shahid et al. between what barbers said (96% disinfecting razors) and what clients observed (49%) is a reminder that self-reported practice, including the self-reported safe practices in this survey, may overstate true behaviour [7].

Several limitations would apply to a real version of this study. The sample of 200 is modest and its sampling method must be stated and justified; self-reported vaccination and screening were not verified; the knowledge scale and cut-offs differ from those in other surveys; demographic characteristics and their association with awareness and practice were not analysed here; and cross-sectional data cannot show causation. The main limitation of this manuscript is that the data are not real, so no conclusions about Sadiqabad can be drawn. Its strengths are a transparent classification of awareness, confidence intervals for each practice, and an explicit comparison with published Pakistani surveys.

5. Conclusion

This illustrative survey shows how awareness, information sources and preventive practices of adults in Sadiqabad could be reported. It demonstrates a knowledge–practice gap in which safe-syringe reporting was high, while vaccination, screening and avoidance of informal injection providers lagged. If real data confirmed this pattern, vaccination and screening outreach through healthcare providers, together with education aimed at users of informal practitioners, would be reasonable priorities. Collection of real community data with common definitions is needed before any conclusion about Sadiqabad is drawn.

REFERENCES

Zubair M, Rashid MU, Azam M, Tariq H, Ali SS, Bajwa AA. Prevalence of hepatitis B and hepatitis C virus in Rahim Yar Khan: a hospital based study. Prof Med J. 2020;27(10):2129-2132. doi:10.29309/TPMJ/2020.27.10.4472

Jokhio AH, Bhatti TA, Memon MS. Barbers' knowledge, attitudes and practices regarding hepatitis B and C transmission in Hyderabad, Pakistan. East Mediterr Health J. 2010;16(10):1079-1084.

Bashir HH, Kamani L, Usman M, Kishwar K. Awareness and safe practices of hepatitis-B and C prevention and transmission among workers of women beauty salons. Pak J Med Sci. 2022;38(8):2156-2162. doi:10.12669/pjms.38.8.6166

Khan N, Ahmed SM, Khalid MM, Siddiqui SH, Merchant AA. Effect of gender and age on the knowledge, attitude and practice regarding hepatitis B and C and vaccination status of hepatitis B among medical students of Karachi, Pakistan. J Pak Med Assoc. 2010;60(6):450.

Ali A, Khan S, Malik SM, Iqbal MH, Aadil M. Comparison of knowledge and attitudes regarding hepatitis B among healthcare professionals in Pakistan. Cureus. 2017;9(2):e1049. doi:10.7759/cureus.1049

Rahman SU, Gao Y, Noor F, Ullah M, Rahman HU, Qadeer A, et al. Assessment of self-reported prevalence, vaccination status, knowledge and behavioral determinants of hepatitis B and D in Pakistan: a cross-sectional study. Front Microbiol. 2026;17:1748793. doi:10.3389/fmicb.2026.1748793

Shahid A, Nasim S, Memon AA. Insight and educational intervention concerning hepatitis among roadside barbers and their clients in Karachi, Pakistan. J Infect Dev Ctries. 2013;7(2):125-129. doi:10.3855/jidc.2290

IEER
Institute for Excellence in Education & Research