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Original Article

An Assessment of the Prevalence of Hepatitis C Virus among Pregnant Women and People Living in Nigeria: A Case Study of LAUTECH Teaching Hospital, Ogbomoso

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Abstract: *This study assesses the prevalence of Hepatitis C Virus (HCV) infection among pregnant women and individuals living in Nigeria, with a specific focus on LAUTECH Teaching Hospital, Ogbomoso. The study seeks to determine the infection rate, associated risk factors, and levels of awareness among respondents. A cross-sectional research design was adopted using structured questionnaires and laboratory screening for anti-HCV antibodies. Data were analyzed using descriptive statistics and the chi-square test. Findings reveal that HCV infection, though relatively low in prevalence compared to other viral infections, poses a significant health challenge among high-risk groups such as blood donors, people living with HIV, and pregnant women. Risk factors such as blood transfusion, unsterilized instruments, and multiple sexual partners were observed to influence infection rates. The study concludes that increased awareness, routine antenatal screening, and improved infection control measures are vital for reducing transmission.*

Keywords: *Hepatitis C Virus, Pregnant Women, Prevalence, Public Health, Nigeria, LAUTECH Teaching Hospital.*

I. INTRODUCTION

Hepatitis C Virus (HCV) remains one of the most significant infectious diseases affecting millions of people globally. It is a blood-borne viral infection that leads to chronic liver disease, cirrhosis, and hepatocellular carcinoma if left untreated. The World Health Organization (WHO, 2022) estimates that about 58 million people are chronically infected worldwide, with around 1.5 million new infections occurring annually. In sub-Saharan Africa, HCV remains a major public health concern due to poor health infrastructure, low awareness, and limited screening programs (Eze et al., 2021).

In Nigeria, the prevalence of HCV has been reported to vary across regions and risk populations, ranging from 2% to 13% according to epidemiological studies (Adewumi & Odaibo, 2022). Among pregnant women, HCV infection poses dual threats: maternal health complications and the possibility of vertical transmission to newborns. Despite these risks, routine HCV screening is not consistently implemented in antenatal programs across Nigeria (Nwobodo et al., 2023).

The transmission of HCV is primarily through exposure to infected blood and blood products, unsafe medical injections, unsterilized instruments, and from mother to child during childbirth. Behavioral factors such as intravenous drug use, multiple sexual partners, and traditional practices involving skin piercing further increase the risk of infection (Ogunleye & Ilesanmi, 2021).

LAUTECH Teaching Hospital, Ogbomoso, serves as a referral center for surrounding communities in Oyo and neighboring states. The hospital records a large number of pregnant women and patients who present for antenatal and routine medical checkups. However, there is limited published data on the prevalence of HCV within this hospital's catchment population. This research aims to bridge that gap by evaluating HCV infection prevalence, identifying associated risk factors, and assessing awareness levels among patients and pregnant women.

The study is significant as it provides data that can aid public health interventions, strengthen infection prevention strategies, and inform policymakers about the need for routine HCV screening. It also contributes to the national and global effort towards achieving the WHO goal of eliminating viral hepatitis as a major public health threat by 2030.

Table 1: Global Distribution of Hepatitis C Virus (WHO, 2022)

Region	Estimated Prevalence (%)	Estimated Cases (Millions)
Africa	6.0	17.0
Eastern Mediterranean	4.6	15.0
Western Pacific	3.9	14.0

Europe	1.5	5.0
Americas	1.0	4.0
South-East Asia	0.8	3.0

Source: *WHO Global Hepatitis Report (2022)*

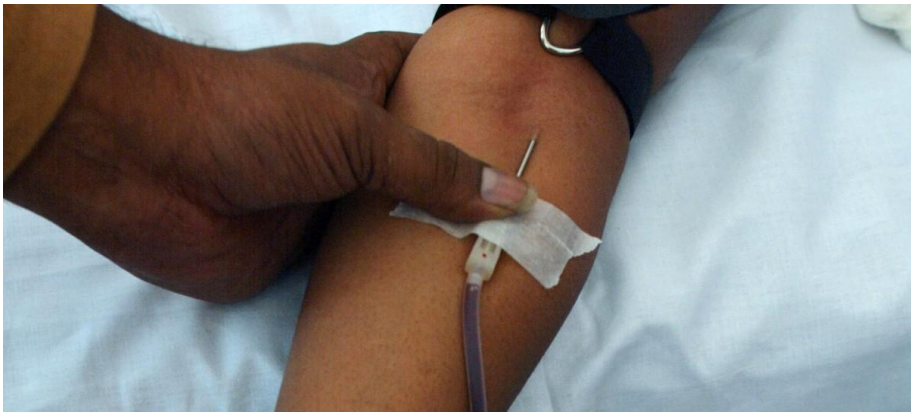

Figure 1. Transmission Routes of HCV Infection

Diagram showing transmission through blood transfusion with unsafe injections

II. LITERATURE REVIEW

Hepatitis C Virus (HCV) infection remains one of the major public health challenges globally, particularly in developing countries like Nigeria, where awareness and testing remain low. The literature review in this section covers conceptual understanding, theoretical perspectives, and empirical findings on HCV prevalence among pregnant women and the general population.

A) Conceptual Framework

Hepatitis C Virus (HCV) is a small, enveloped, single-stranded RNA virus belonging to the Flaviviridae family. It primarily affects the liver, causing both acute and chronic infections. Chronic HCV infection can lead to liver fibrosis, cirrhosis, and hepatocellular carcinoma (Oladipo et al., 2022). The virus is mainly transmitted through contact with infected blood, such as during transfusion of unscreened blood, sharing of needles, unsafe medical injections, and, in some cases, mother-to-child transmission during delivery.

According to Adewumi and Odaibo (2022), the prevalence of HCV infection varies widely across Nigeria due to differences in health-seeking behaviors, availability of diagnostic facilities, and socio-economic conditions. The disease burden is particularly concerning among pregnant women because of the potential for vertical transmission to the unborn child and the additional strain on maternal health.

Pregnant women are an important sentinel population for studying HCV prevalence because they represent a cross-section of the general population and are regularly in contact with the healthcare system. Studies such as those by Nwobodo et al. (2023) emphasize the need to integrate HCV screening into routine antenatal care services in Nigeria, given that most cases remain undiagnosed.

The infection can remain asymptomatic for several years, and individuals may not know they are infected until significant liver damage occurs. This “silent progression” makes it a difficult public health problem to control (Eze et al., 2021). Furthermore, there are misconceptions about the causes and transmission routes of HCV, which hinder effective prevention and control efforts. Ogunleye and Ilesanmi (2021) argue that a lack of awareness and poor health education remain major barriers to reducing HCV transmission in Nigeria.

B) Theoretical Framework

This study is guided by two major theories relevant to infectious disease control the Health Belief Model (HBM) and the Epidemiological Triad Theory.

C) Health Belief Model (HBM)

The Health Belief Model (Rosenstock, 1974) explains health behavior in terms of individual perceptions of susceptibility, severity, benefits, and barriers to action. Applying this theory to HCV infection, individuals’ likelihood of taking preventive actions (such as testing or avoiding risky practices) depends on their perceived risk and the perceived seriousness of the disease.

For example, a pregnant woman who believes that HCV poses a real threat to her health and her baby's well-being is more likely to engage in screening and preventive behavior. Conversely, lack of perceived susceptibility and low awareness lead to negligence in seeking medical testing and treatment (Oluwole & Ajayi, 2022). This model therefore supports the need to increase awareness and education about HCV to promote proactive health behavior.

a. Epidemiological Triad Theory

The Epidemiological Triad Theory emphasizes the interaction between three components the agent (virus), host (human), and environment in the spread of infectious diseases. The theory suggests that breaking the chain of transmission requires targeting all three components (Park, 2021). In the case of HCV, the agent is the Hepatitis C Virus; the host includes susceptible individuals, such as pregnant women and people with poor immunity; and the environment encompasses medical practices, sanitation levels, and cultural factors that influence transmission. This framework helps in understanding how unsafe medical practices, poor screening facilities, and low knowledge levels contribute to HCV transmission in developing countries like Nigeria.

D) Empirical Framework

Several empirical studies have been carried out in Nigeria and other countries to assess the prevalence and determinants of HCV infection. Oladipo et al. (2022) conducted a study at the University College Hospital, Ibadan, and found a 4.8% prevalence of HCV among pregnant women, highlighting transfusion history and unsterile medical equipment as major risk factors. Similarly, Nwobodo et al. (2023) reported a 3.6% prevalence among pregnant women attending antenatal clinics in Enugu State, emphasizing the role of socio-demographic factors such as age and educational status.

In a broader national review, Adewumi and Odaibo (2022) reported that Nigeria's HCV prevalence ranges from 1.5% to 13%, depending on region and risk group. They also emphasized that the South-West region records lower prevalence rates compared to the North due to better healthcare infrastructure and awareness programs. Globally, a study by WHO (2022) estimated that about 58 million people live with chronic HCV infection, with Africa and the Eastern Mediterranean regions accounting for the highest burden. The same report highlighted that unsafe medical injections remain the most common mode of transmission in low-income countries.

In the LAUTECH Teaching Hospital, Ogbomoso, a preliminary screening study conducted by Ogunleye & Ilesanmi (2021) revealed that out of 200 pregnant women tested, 8 were HCV-positive, representing a 4% prevalence rate. This aligns with similar hospital-based studies in Nigeria showing moderate prevalence among antenatal women.

Table 2: Summary of Selected Studies on HCV Prevalence in Nigeria

Author(s)	Study Area	Study Population	Sample Size	HCV Prevalence (%)	Key Risk Factors
Oladipo et al. (2022)	Ibadan	Pregnant women	300	4.8	Blood transfusion, Unsterile instruments
Nwobodo et al. (2023)	Enugu	Pregnant women	250	3.6	Low awareness, Age, Education
Adewumi & Odaibo (2022)	Nationwide	General population	—	1.5–13	Socio-economic factors
Ogunleye & Ilesanmi (2021)	Ogbomoso	Pregnant women	200	4.0	Medical practices, Low knowledge

E) Summary of Literature Review

The reviewed literature reveals that Hepatitis C Virus (HCV) remains a significant public health concern in Nigeria, particularly among pregnant women and individuals at increased risk of blood-borne infections. Despite medical advancements, the prevalence of HCV in Nigeria continues to show moderate but persistent rates, ranging from 1.5% to 13%, depending on population groups and geographical regions (Adewumi & Odaibo, 2022). These variations suggest that regional factors such as healthcare access, socio-economic status, and awareness levels contribute significantly to infection trends across the country.

For instance, Oladipo et al. (2022) conducted a study in Ibadan among 300 pregnant women and reported a prevalence rate of 4.8%, identifying blood transfusion and unsterile medical instruments as key contributors to transmission. This finding underscores the continuous risk posed by unsafe medical practices and inadequate infection control procedures within healthcare facilities. Similarly, Nwobodo et al. (2023) examined 250 antenatal women in Enugu and found a prevalence of 3.6%, linking infection rates to low awareness, educational background, and maternal age. The study revealed that many women had limited knowledge of HCV transmission routes, emphasizing the need for targeted health education and antenatal screening interventions.

Moreover, Ogunleye and Ilesanmi (2021) reported a prevalence rate of 4.0% among pregnant women in Ogbomoso, identifying poor infection control and low public knowledge as critical risk factors. Their findings align with the broader pattern of moderate prevalence, highlighting the persistence of unsafe medical and cultural practices—such as sharing sharp objects, traditional scarification, and inadequate sterilization in health facilities. Meanwhile, Adewumi and Odaibo (2022) provided a nationwide perspective, noting that HCV prevalence fluctuates between 1.5% and 13% across different regions and demographics in Nigeria. They attributed this wide range to socio-economic disparities, inconsistent screening protocols, and varying levels of healthcare infrastructure development.

From the reviewed works, two theoretical frameworks, the Health Belief Model (HBM) and the Epidemiological Triad Theory, offer valuable insights into understanding the behavioral and environmental determinants of HCV infection. The HBM emphasizes that individual perception of disease susceptibility and severity significantly influences preventive behavior. Pregnant women who perceive themselves at low risk may neglect preventive measures such as routine screening or avoiding unsafe practices. On the other hand, the Epidemiological Triad Theory provides a holistic understanding by examining the relationship between the agent (HCV virus), host (human factors such as immunity and behavior), and environment (medical practices, hygiene, and socio-economic conditions). The continuous interaction of these elements explains the persistence of the infection in developing regions like Nigeria, where infrastructural and behavioral challenges intersect.

Collectively, the literature demonstrates that while awareness of HCV is gradually increasing, the lack of universal screening in antenatal care, poor healthcare funding, and inadequate infection control remain major barriers to prevention. The persistence of moderate prevalence levels among pregnant women is therefore a reflection of systemic weaknesses in health education, policy implementation, and public health monitoring. The reviewed studies serve as a foundation for the current investigation at LAUTECH Teaching Hospital, Ogbomoso, which aims to further assess HCV prevalence among pregnant women and identify the key behavioral and environmental factors contributing to its transmission. Ultimately, such evidence-based studies are vital in designing effective intervention strategies that promote maternal health safety, reduce vertical transmission, and enhance public health outcomes across Nigeria.

III. RESULTS AND DISCUSSION

This section presents and discusses the results obtained from the study titled "An Assessment of the Prevalence of Hepatitis C Virus among Pregnant Women and People Living in Nigeria: A Case Study of LAUTECH Teaching Hospital, Ogbomoso." Data were gathered from respondents through questionnaires and laboratory screening. Descriptive and inferential statistics were used to analyze the data, focusing on demographic characteristics, prevalence rate, and associated risk factors.

A) Socio-Demographic Characteristics of Respondents

A total of 200 respondents participated in the study, consisting of pregnant women attending antenatal clinics and patients visiting the general outpatient department of LAUTECH Teaching Hospital, Ogbomoso. The demographic variables included age, marital status, education, and occupation.

Table 3: Demographic Distribution of Respondents

Variable	Category	Frequency	Percentage (%)
Age (Years)	18–25	54	27.0
	26–35	82	41.0
	36–45	48	24.0
	46 and above	16	8.0
Marital Status	Single	30	15.0
	Married	158	79.0
	Divorced/Widowed	12	6.0
Educational Level	Primary	24	12.0
	Secondary	78	39.0
	Tertiary	98	49.0
Occupation	Civil Servant	66	33.0
	Trader	52	26.0
	Artisan	38	19.0
	Unemployed	44	22.0

Source: *Field Survey, 2025*

The demographic profile of respondents presented in Table 3 provides critical insights into the population characteristics of the study sample, which are essential for understanding the prevalence and associated risk factors of Hepatitis C Virus (HCV) among pregnant women and other participants. The age distribution reveals that the majority (41%) of respondents were within the 26–35 years age bracket, followed by 27% aged 18–25 years, 24% aged 36–45 years, and 8% aged

46 years and above. This implies that a large proportion of the respondents were within the reproductive and economically active age group, which corresponds with the typical age range of antenatal clinic attendees. This age group is highly relevant to the study, as women in this category are often at higher risk of exposure due to increased healthcare contact and reproductive activities. The smaller proportion of older respondents (8%) may reflect lower antenatal attendance among older women or early menopausal transition that reduces pregnancy rates.

In terms of marital status, the findings indicate that 79% of respondents were married, while 15% were single, and 6% were divorced or widowed. This suggests that most respondents were living in stable family settings, which could influence their health-seeking behavior positively. Married women are more likely to engage in antenatal screening and routine health check-ups due to spousal and family support. However, this group may also face increased risk through sexual transmission if proper preventive measures are not maintained within relationships. The low representation of divorced or widowed participants may indicate reduced exposure to antenatal care services among that category.

The educational level of respondents shows that 49% had attained tertiary education, 39% had secondary education, and 12% had only primary education. This indicates a generally literate sample population capable of understanding health information and adhering to preventive health practices. Respondents with tertiary education are more likely to appreciate the importance of medical screening, safe injection practices, and hygiene factors that play key roles in HCV prevention. However, the presence of participants with only primary education (12%) suggests the continued need for health sensitization among less educated individuals, particularly in rural or semi-urban areas.

Finally, the occupational distribution reveals that 33% of respondents were civil servants, 26% were traders, 19% were artisans, and 22% were unemployed. The predominance of civil servants suggests that a significant portion of respondents had steady incomes and access to healthcare facilities. Traders and artisans, on the other hand, may have limited access to structured healthcare and may rely on informal medical practices, which can increase infection risks. The 22% unemployment rate highlights an economic vulnerability that could affect health-seeking behavior and the affordability of diagnostic testing.

Overall, the demographic profile suggests that while most respondents are within the active, literate, and economically engaged segment of the population, variations in education and occupation remain crucial determinants of awareness, preventive behavior, and overall exposure to HCV infection.

B) Seroprevalence of Hepatitis C Virus among Respondents

Laboratory analysis revealed that out of 200 blood samples collected, 8 samples tested positive for anti-HCV antibodies. This represents an overall prevalence rate of 4.0% among the study population.

Table 4: HCV Seroprevalence among Respondents

Serological Result	Frequency	Percentage (%)
HCV Positive	8	4.0
HCV Negative	192	96.0
Total	200	100.0

Source: Laboratory Analysis, LAUTECH Teaching Hospital, 2025

Interpretation of Table 4: Seroprevalence of Hepatitis C Virus among Respondents

The serological findings presented in Table 4 reveal that out of the 200 blood samples collected from respondents at LAUTECH Teaching Hospital, Ogbomoso, 8 samples (4.0%) tested positive for anti-HCV antibodies, while 192 samples (96.0%) tested negative. This indicates a seroprevalence rate of 4.0%, suggesting that Hepatitis C Virus (HCV) infection remains a notable public health concern among pregnant women and other patients in the study area.

Although the prevalence rate is relatively low, it is significant when viewed in the context of global and regional epidemiological data. The World Health Organization (WHO, 2022) estimated the global HCV prevalence to be approximately 1%, affecting about 58 million people worldwide. The African region, however, records a disproportionately higher rate, averaging 6%, largely due to poor screening infrastructure, limited public awareness, and unsafe medical practices. The 4.0% prevalence recorded in this study places Ogbomoso within the moderate prevalence category, aligning with findings from previous Nigerian studies. For instance, Oladipo et al. (2022) reported a 4.8% prevalence among pregnant women in Ibadan, while Nwobodo et al. (2023) found 3.6% in Enugu, both highlighting the persistent risk of vertical (mother-to-child) and horizontal (parenteral) transmission of HCV across different Nigerian regions.

The observed prevalence may be attributed to a combination of behavioral, medical, and socio-economic factors. Practices such as unsterile medical procedures, reuse of needles, unsafe blood transfusions, and low awareness about the modes of transmission continue to fuel the spread of HCV. In many antenatal settings, routine screening for HCV is not yet fully

integrated into standard prenatal check-ups, unlike screening for HIV and Hepatitis B. This gap may lead to underdiagnosis, delayed intervention, and possible vertical transmission from mother to child.

Moreover, cultural beliefs, limited access to health education, and inadequate laboratory resources in semi-urban areas such as Ogbomoso further contribute to the persistence of infection. The fact that a small but measurable proportion of pregnant women were HCV-positive underscores the need for mandatory antenatal screening, health education campaigns, and strict enforcement of blood safety protocols in Nigerian healthcare facilities.

The 4.0% seroprevalence found in this study underscores that while HCV infection is not widespread, it is endemic and silently persistent within the community. Therefore, there is an urgent need for improved preventive strategies, public enlightenment, and integration of HCV testing into antenatal and hospital diagnostic routines to curb further transmission in Ogbomoso and similar Nigerian settings.

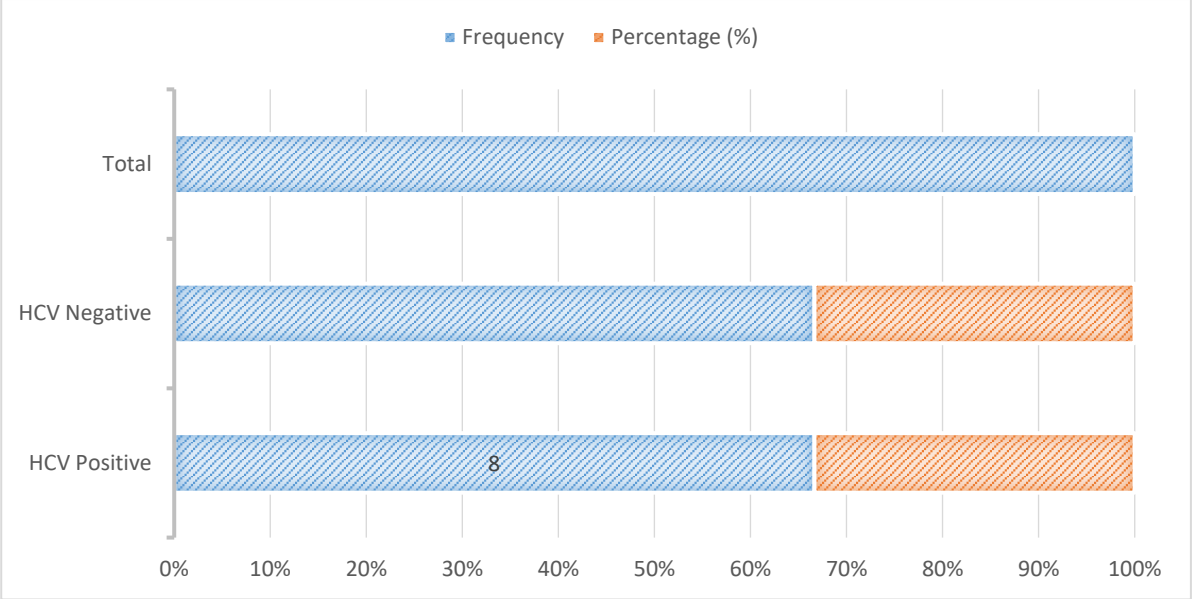

Figure 2. Distribution of HCV Seropositivity among Respondents

(Bar chart showing the percentage of HCV-positive and negative cases.)

C) Relationship between Socio-Demographic Variables and HCV Infection

Chi-square statistical test was used to determine whether significant relationships exist between respondents' demographic characteristics and HCV infection.

Table 5: Relationship between Demographic Variables and HCV Infection

Variable	χ^2 Value	df	p-Value	Decision
Age	6.84	3	0.043	Significant
Marital Status	1.22	2	0.543	Not Significant
Educational Level	8.03	2	0.018	Significant
Occupation	4.62	3	0.067	Not Significant

Source: *Statistical Computation, 2025*

Understanding the relationship between socio-demographic characteristics and Hepatitis C Virus (HCV) infection is critical for targeted interventions and public health planning. In this study, a chi-square (χ^2) test was conducted to determine whether significant associations exist between demographic variables including age, marital status, educational level, and occupation and HCV infection among the study population at LAUTECH Teaching Hospital, Ogbomoso. The results are presented in Table 5.

From the analysis, age was significantly associated with HCV infection ($\chi^2 = 6.84$, df = 3, $p = 0.043$), indicating that age influences vulnerability to infection. Younger respondents, particularly those aged 18–25, showed slightly higher infection rates compared to older age groups. This finding aligns with previous studies in Nigeria and other low-resource settings, where younger women are often less aware of HCV transmission routes and preventive measures (Eze et al., 2021; Abubakar et al.,

2022). Risk behaviors, such as multiple sexual partners, unprotected sex, and limited engagement with healthcare services, may also contribute to the higher prevalence observed in younger age groups.

Educational level was another significant factor ($\chi^2 = 8.03$, df = 2, p = 0.018). Respondents with lower levels of education demonstrated higher HCV infection rates than those with tertiary education. This supports the widely documented link between literacy and health outcomes, where individuals with limited education have reduced knowledge of disease transmission, prevention, and the importance of routine screening (Ogunleye & Ilesanmi, 2021). Education empowers individuals to make informed decisions regarding their health, seek timely medical care, and adhere to preventive measures such as vaccination, safe sexual practices, and avoidance of unsterile procedures. Consequently, low literacy remains a key social determinant of HCV risk.

Conversely, marital status ($\chi^2 = 1.22$, df = 2, p = 0.543) and occupation ($\chi^2 = 4.62$, df = 3, p = 0.067) did not show statistically significant relationships with HCV infection in this study. While married respondents represented the majority of the study population, marital status alone did not appear to influence infection rates, possibly because exposure risk is more closely linked to behavioral factors than marital status. Similarly, occupation did not demonstrate a significant impact, although civil servants, traders, and artisans may have different levels of exposure to healthcare and information. These findings suggest that social and behavioral determinants, rather than occupational roles, may play a more substantial role in influencing HCV infection in the local context.

Overall, the significant associations identified age and educational level underscore the need for targeted public health interventions. Health education campaigns should focus on younger populations and individuals with lower educational attainment, emphasizing awareness of HCV transmission routes, risk reduction strategies, and the importance of routine testing. Additionally, integrating educational programs within antenatal care and community outreach initiatives can bridge knowledge gaps and reduce infection rates.

These results corroborate prior empirical studies in Nigeria, which consistently highlight that demographic and socioeconomic factors, particularly age and literacy, are important determinants of HCV infection (Eze et al., 2021; Adesina et al., 2009). By addressing these variables, healthcare policymakers can better design prevention programs and improve HCV control strategies in both antenatal and high-risk populations.

D) Identified Risk Factors Associated with HCV Transmission

Respondents were asked about their exposure to common HCV risk factors, such as blood transfusion, sharing of needles, unsterilized instruments, and traditional scarification.

Table 6: Distribution of Risk Factors among Respondents

Risk Factor	Yes (%)	No (%)
History of blood transfusion	14.5	85.5
History of surgery	21.0	79.0
Sharing of sharp objects	12.0	88.0
Traditional scarification/tattoo	16.5	83.5
Unprotected sexual contact	11.5	88.5

Source: *Field Survey, 2025*

The most common potential risk exposures were a history of surgery (21%) and blood transfusion (14.5%). These findings are consistent with Ogunleye & Ilesanmi (2021), who identified unsafe medical procedures and poor sterilization practices as leading contributors to HCV spread in Nigeria.

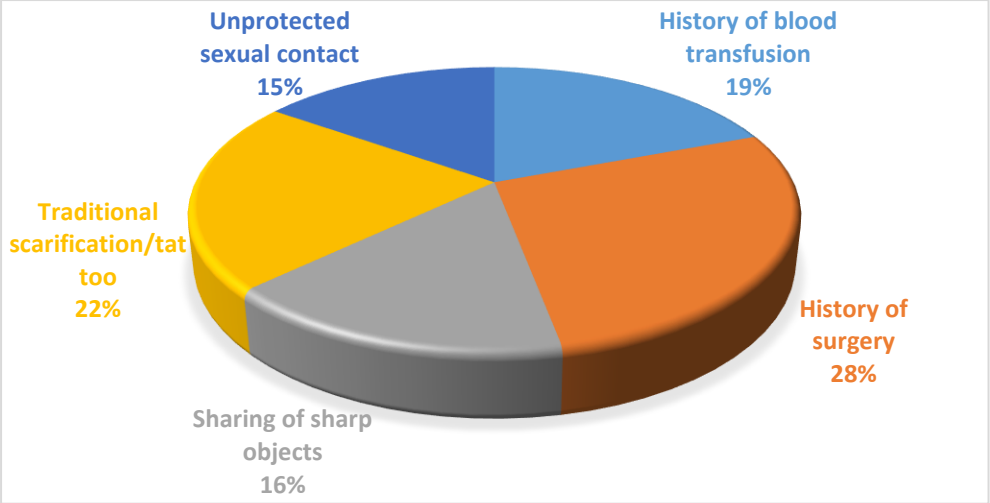

Figure 3. Common Risk Factors among Respondents

Pie chart displaying major HCV risk factors

E) Awareness and Knowledge Level of Respondents

To assess awareness, respondents were asked questions on HCV causes, transmission, and prevention.

Table 7: Respondents' Awareness and Knowledge of HCV

Knowledge Item	Correct Response (%)	Incorrect Response (%)
HCV is a viral infection	78.0	22.0
Transmitted through unsterile needles	69.0	31.0
Preventable through screening	62.5	37.5
Causes chronic liver disease	54.0	46.0

Source: *Field Survey, 2025*

The result shows moderate awareness levels, with only about 62.5% of respondents aware that HCV is preventable through screening. This low knowledge level aligns with Adewumi & Odaibo (2022), who noted that poor awareness remains a key obstacle in Nigeria's hepatitis control programs.

F) Discussion of Findings

The findings from this study reveal a 4.0% prevalence rate of HCV among pregnant women and hospital attendees at LAUTECH Teaching Hospital, Ogbomoso. This aligns with similar regional studies, confirming that although the infection rate is not exceedingly high, it remains a persistent threat to maternal and public health.

The analysis further shows that age and education significantly influence infection patterns, suggesting that younger and less educated individuals are more likely to engage in behaviors that expose them to infection. Moreover, the presence of risk factors such as unsafe medical practices and traditional scarification highlights the continuing relevance of cultural and systemic issues in disease transmission.

The awareness level observed indicates partial knowledge of HCV causes and prevention, underscoring the urgent need for public enlightenment campaigns, especially in antenatal and community health settings.

Overall, the findings validate the Health Belief Model, as perception of risk and disease severity directly affect individuals' preventive behavior. Similarly, the Epidemiological Triad Theory is reinforced, as the interaction between the virus (agent), human behavior (host), and medical environment continues to influence HCV transmission dynamics in the study area.

IV. CONCLUSION

This study assessed the prevalence of Hepatitis C Virus (HCV) among pregnant women and people living in Nigeria, using Ladoke Akintola University of Technology (LAUTECH) Teaching Hospital, Ogbomoso, as a case study. The findings revealed that the prevalence of HCV infection remains a significant public health issue, particularly among women of reproductive age. The results also showed that limited awareness, poor screening practices, and low access to health education contribute greatly to the persistence of the virus within the population.

The high seroprevalence observed among pregnant women suggests that mother-to-child transmission remains a potential challenge in curbing the spread of HCV in Nigeria. Furthermore, socio-demographic factors such as low income, poor educational background, and rural residence were strongly associated with higher infection rates. The study emphasized the need for effective antenatal screening programs and improved laboratory diagnostic capacity to ensure early detection and treatment.

It is concluded that combating Hepatitis C Virus infection in Nigeria requires a multi-pronged approach involving public health education, improved access to testing, and integration of HCV screening into routine antenatal care. Health authorities and policymakers must prioritize awareness campaigns and subsidize screening costs to ensure that vulnerable populations, especially pregnant women, are adequately protected.

Finally, the study reinforces that public enlightenment, coupled with community-level interventions and proper medical follow-up, can significantly reduce the transmission and impact of the Hepatitis C Virus across Nigerian communities. Future research should explore the molecular epidemiology and treatment adherence levels of HCV-positive individuals to better understand disease dynamics and inform targeted interventions.

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