

HEPATITIS B AWARENESS IN INDIAN PUBLIC A CROSS SECTIONAL SURVEY

Dr Rukmini Singh ,Dr Anshika Yadav,Dr Radhika Singh

Department of Quality Assurance

SDMH ,Jaipur (Rajasthan)

IJSER

ABSTRACT

Hepatitis B is a worldwide cause of concern due to its transmissibility and lack of knowledge in general public . It is caused by the Hepatitis B virus (HBV) which can spread by percutaneous or mucosal exposure to infective blood or body fluids. The complications include liver failure ,hepatic cancer and other related morbidity.

The main aim of the study was to investigate the Awareness of various aspects of Hepatitis B infection and vaccination among the general public in India through an online questionnaire based survey

Methods - The survey was done through the survey monkey website .There were 234 respondents. The data was analyzed and the incomplete responses were removed The data was analyzed for correlation between the different variables .

Results -The results revealed that there is a major gap in awareness about Hepatitis B spread ,disease process and vaccination . Based on the finding, the study recommends that; there is a need to create more awareness of the availability of an effective safe vaccine that prevent HBV.and mass screening programs need to be implemented to identify HBV positive patients and contact tracing for appropriate medical management .There is also a need to make the public aware of the transmissibility ,treatment options and prevention of complications

Keywords: hepatitis B,transfusion transmitted infections,hepatitis B vaccination ,complications of hepatitis B

INTRODUCTION

Hepatitis B is a vaccine-preventable liver infection caused by the hepatitis B virus (HBV). Hepatitis B is spread when blood, semen, or other body fluids from a person infected with the virus enters the body of someone who is not infected (cdc, 2020) CDC estimates risk for chronic infection in infants with hepatitis B to be about 90% and only 2-6% in adults .with serious life threatening health issues like cirrhosis or liver cancer (WHO, 2021)The virus is most commonly transmitted from mother to child during birth and delivery, as well as through contact with blood or other body fluids during sex with an infected partner, unsafe injections or exposures to sharp instruments.WHO estimates that 296 million people were living with chronic hepatitis B infection in 2019, with 1.5 million new infections each year.

Awareness about Hepatitis B is low in India and since its asymptomatic for a long time progressing slowly so the timely treatment is not available before the complications set in .Treatment options are also not able to cure completely and is very expensive for the common person .Progression and spread of the disease is therefore not controlled in time .Diagnostic testing also is hampered due to the window period of virus detection and the methods of testing available in smaller towns ,cities and villages . (clinic, 2020)Hepatitis B carriers are people who have the hepatitis B virus in their blood, even though they don't feel sick.and are between 6%

and 10% of those infected with the virus and can infect others without knowing it. There are over 250 million people in the world who are carriers of HBV, with about 10% to 15% of the total located in India (clinic, 2020).

Efforts are needed to improve awareness about the disease ,its spread, and immunization .Prevention through immunization is the best way to stop the spread and improved access to diagnosis and treatment will halt the progression to complications Health care workers are at increased risk and need to be careful with universal precautions . Risk of transmission through blood and blood products ,unsafe tattoo needles ,unsafe surgical dental practices and needle sharing need to be included in health awareness campaigns along with safe sexual practices to prevent sexual transmission. Health education for disease prevention is the best way along with immunization for stopping the spread of this disease .

AIM

To assess levels of knowledge and awareness about hepatitis B in the general population as there was a gap in knowledge levels about the disease and the benefits of immunization along with preventive aspects

METHODS

Study design - To understand awareness about Hepatitis B in general population a questionnaire was created covering salient features of Hepatitis B ,its spread,its prevention and immunization .The survey was sent via survey monkey using email and whats app group contacts .The return replies were collected and analyzed The questionnaire had 5 questions on socio demographic status to understand the relationship between awareness and demographic variables .There were 2 questions on vaccination and the rest were on symptoms ,complications ,treatment ,prevention of Hepatitis B

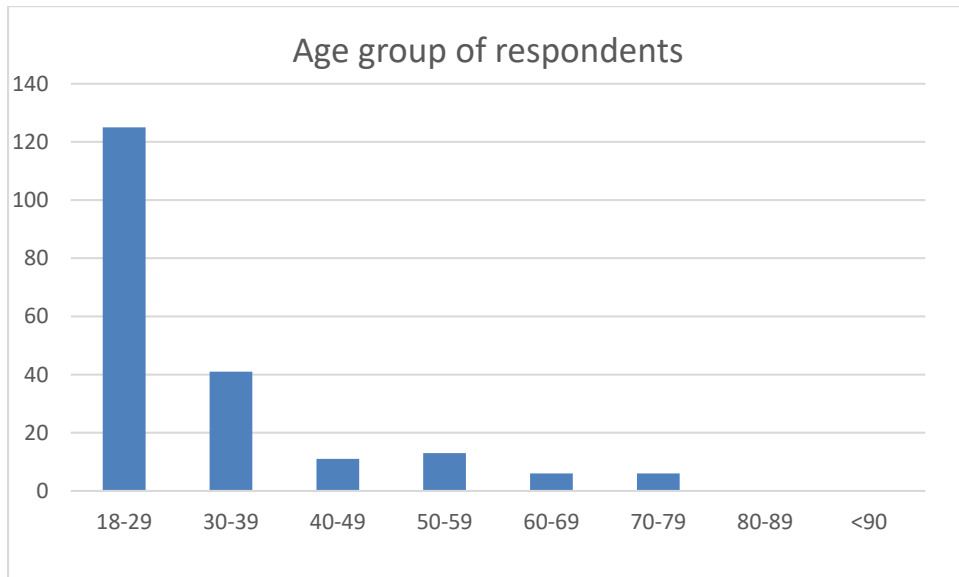
DATA COLLECTION – Data was collected by the return emails and answers received on survey monkey link by the willing participants .All were informed that the surveys was for a research project and no personal classified information was sought .There were 234 respondents and they were filtered for completion and 202 responses were accepted and analyzed

ANALYSIS -The data was analyzed for the demographic variables and the knowledge and awareness about the disease along with vaccination status .The

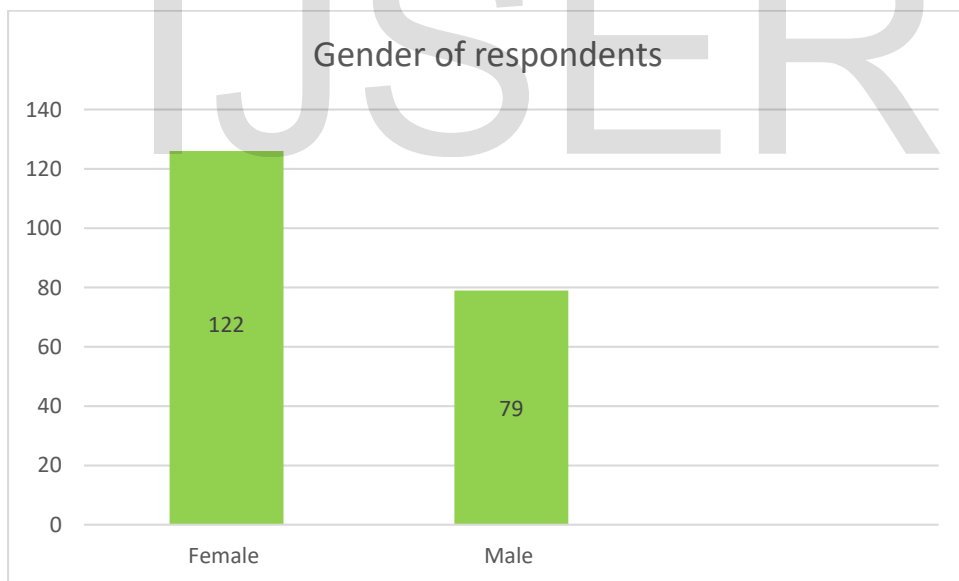
RESULTS –

The survey data was collected and analyzed to assess the levels of awareness in different groups of population who took the survey .

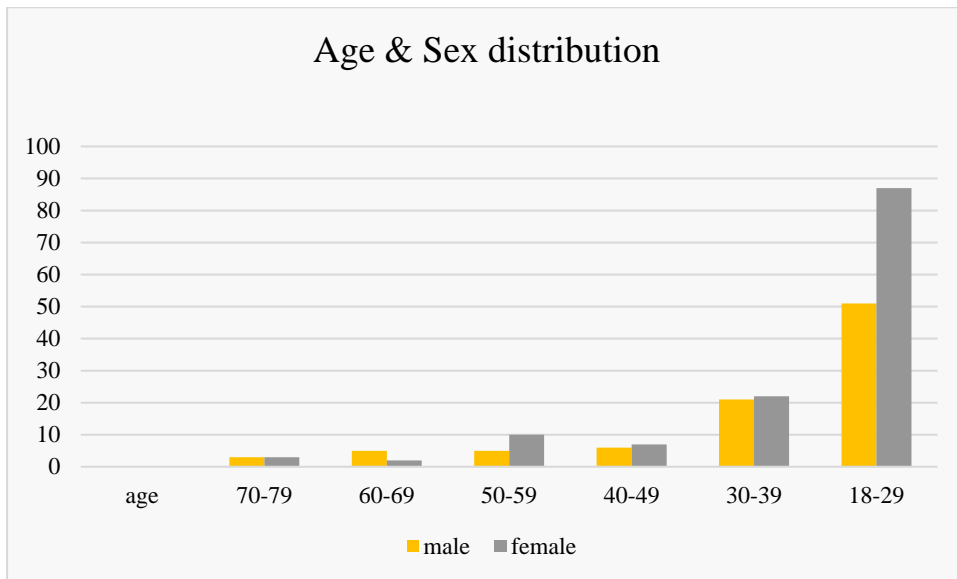
The survey demographical variables were as below :



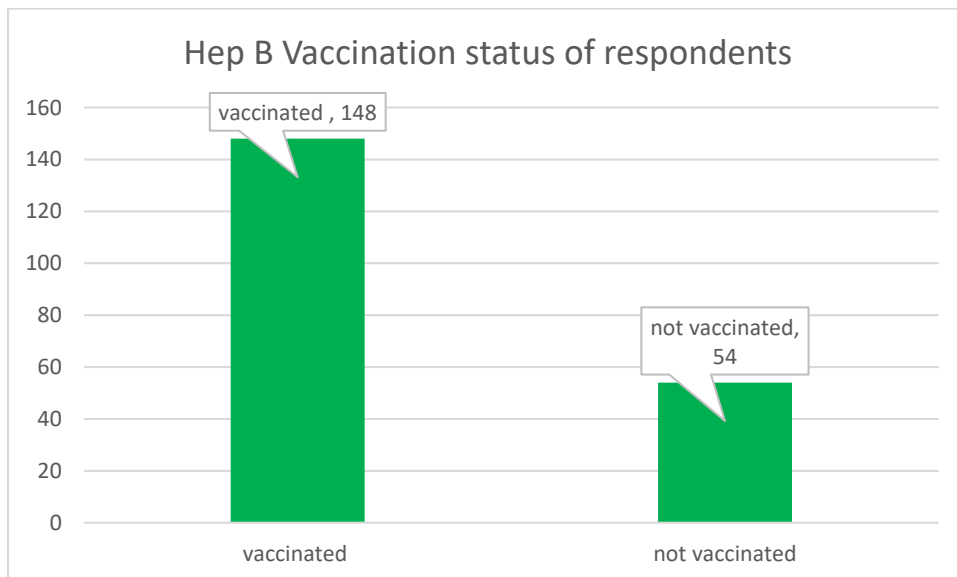
There was overall maximum participation from the age group of 18-29 years(125 entries) and minimum was in age group of 60-69 yrs or 70-79 yrs(6 entries each)



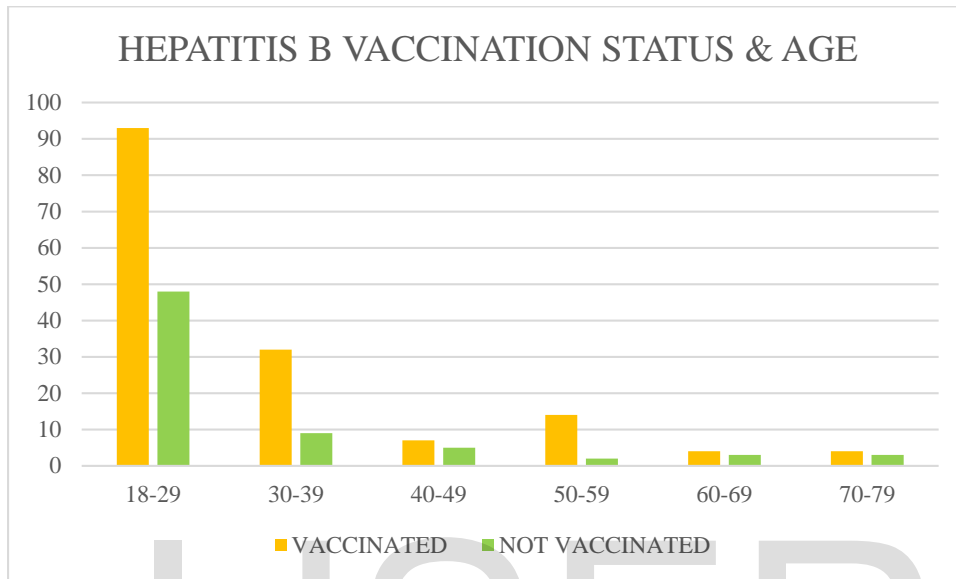
The gender demographic had more female respondents with 122 female and 79 male respondents.



The demographic details revealed there was a larger percentage of females that responded to the survey and the greatest difference was in age group of 18-29 years where 87 females responded compared to only 51 males. The age group of 70-79, 40-49 and 30-39 had similar male:female ratio in responding to survey

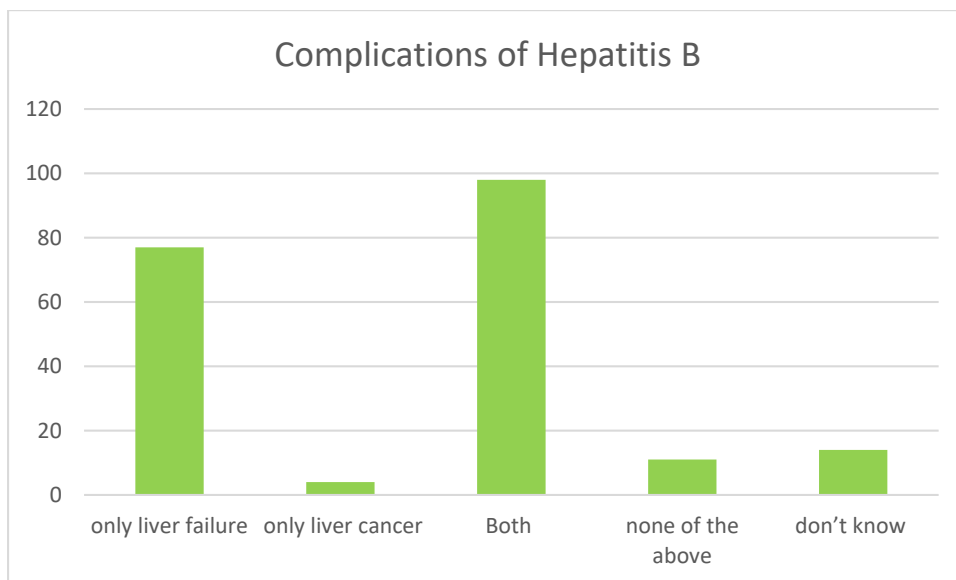


The Hepatitis vaccination status of respondents had 148 (73.26%) vaccinated and 54(26.7%) were not vaccinated

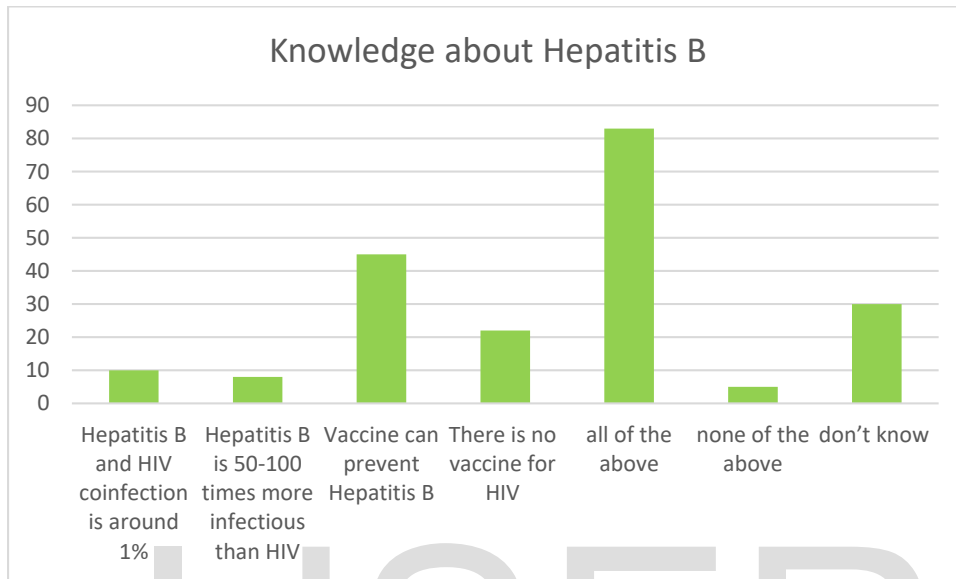


The data was studied for the correlation between age and hepatitis B vaccination status

In the age group of 70-79 yrs ,60-69 years there were equal number of vaccinated and non vaccinated .In the age group of 50-59 years there were more vaccinated people in comparison to non vaccinated .In 18-29 yrs and 30-39 yrs there was a major difference in the vaccinated and non vaccinated being nearly double in 18-29 yrs and 1/3rd non vaccinated in 30-39 years age group



The respondents awareness about complications of liver failure and liver cancer because of Hepatitis B was found to be lacking with only 48.5% having complete knowledge and the rest had inadequate levels of awareness about complications of Hepatitis B. There were 77 respondents who answered only liver failure and 4 respondents were aware of only liver cancer as complications



The level of knowledge about vaccine and coinfection with HIV was found to be inadequate with only 41 % having proper and complete information about the vaccine ,coinfection and infectivity .There were 45 participants who had knowledge of vaccine Hep B availability only and not about HIV vaccine or infectiousness and 10 were knowledgeable about HIV coinfection with Hepatitis B .but not about vaccine or infectivity

35 participants had no knowledge about the vaccine and infectiousness or coinfection risk of Hepatitis B

DISCUSSION

Hepatitis B is a vaccine preventable disease and easy access to vaccine in India .It has great burden of morbidity and chronic long term disease complications which can be avoided only with increased awareness .In the modern age there is great information available and it is easy to reach people with the vast network of healthcare workers .So far focus has been on the healthcare workers with universal precautions and hepatitis B vaccine being a part of occupational safety .The impact of disease prevention measures needs more awareness and timely detection to avoid the spread of the disease by the various routes including tatoo,dental procedures,blood transfusion ,needle sharing ,mother to child ,sexual transmission etc.Maternal and child services and national immunization program are focusing on this disease to check the spread but timely diagnosis is the need as it is not diagnosed in the early stages as proper Hepatitis B testing services are not used in peripheral areas.

With the health insurance schemes of the government access to treatment is improving but timely diagnosis before complications before complications set is important .The new measure of getting patient records uploaded in the new insurance schemes is making it better for proper history and health information of the patients. Unless we reach out to the periphery we cannot make great strides and that is the main focus area.

Education in school and college also will help in timely recognition of disease and taking protective measures against spread from high risk behaviour .It is hoped this survey will have raised some questions in the respondents and made them more aware of this disease and its various ramifications .

There is thus an urgent need to address this gap and increase all round efforts to combat this menace leading to so much suffering and morbidity . Based on the finding, the study recommends that; there is a need to create more awareness of the availability of an effective safe vaccine that prevent HBV.and mass screening programs need to be implemented to identify HBV positive patients and contact tracing for appropriate medical management .There is also a need to make the public aware of the transmissibility ,treatment options and prevention of complications

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