

Original Article

Knowledge and Attitude Towards Hepatitis B virus Infection Among Nurses in Benadir Hospital, Mogadishu, Somalia

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Abstract

Hepatitis B (HBV) causes potentially fatal liver infection and associated significant morbidity and mortality. It is a public health problem that increases the risk of liver and bile duct carcinoma. This study aimed to assess knowledge and attitude regarding HBV infection among nurses working in Benadir hospital Mogadishu, Somalia

Methods: Descriptive hospital-based cross-sectional study design was conducted on nurses working at Benadir Hospital, Mogadishu, Somalia. A representative sample of 92 nurses working in Benadir hospital was recruited for this study during 2020, and a structured questionnaire was used to obtain and collect in-depth information on the nurse's knowledge and attitude towards HBV infection.

Results: Of the 92 total respondents, the majority, 66 (72%), were females, and 47 (51%) were young and between the age of 21-30 years. Regarding the educational level, about 51 (55.4%) had a bachelor's degree. The study found that most nurses, 76 (82%), had good knowledge about HBV infection and a positive attitude 78 (85%) towards this infection.

Conclusion: The study concluded that most of the nurses working at Benadir hospital had average knowledge of hepatitis Virus infection, mode of transmission, and a positive attitude. The study recommends a further in-depth study on how healthcare provider's knowledge, attitude, and practice impact tackling the spread of this highly prevalent virus infection in Somalia.

Keywords: Knowledge, Attitude, Hepatitis B virus, HBV, Benadir hospital, Somalia

Introduction

The hepatitis B virus (HBV) causes a potentially fatal liver infection with significant morbidity and mortality. HBV is a primary public health concern globally that can lead to chronic infection and increases the risk of liver and bile duct carcinoma. [1] HBV is a liver infection caused by the hepatitis B virus that can be prevented with a vaccine (HBV). Hepatitis B is transmitted when blood, sperm, or other bodily fluids from a virus-infected individual enter the body of an uninfected person. [2]

In 2017, CDC received 3,407 reports of HBV infection. However, persons who do not disclose having the virus are considered a potential risk to the healthcare workers, especially nurses. Its estimated that the number of people with acute HBV infections had increased recently, estimated to be 22,100 every year. [3] Moreover, the rate of new cases is getting increased, with people infected with HBV surface

antigen (HBsAg) risen from 223 million in 1990 to 240 million in 2005. [4] Healthcare workers (HCWs) who come into contact with blood and other bodily fluids regularly are at a higher risk of contracting bloodborne viruses like HBV, HCV, and HIV. [5]

If preventive measures are not employed properly, nurses and other health professionals are more likely susceptible and caught the virus. Nurses are frontline caretakers that play a critical role in the healthcare settings of patients suffering from multiple illnesses, including HBV infection. They offer emotional support as well as education about the disease's nature, diagnosis, and prevention. Therefore, nurses must be knowledgeable with HBV transmission and preventive measures to reduce the risk of spreading infection from patient to patient, nurse to patient, or patient to nurse.

Hepatitis B is a dangerous disease that can impact nurses if they do not understand how the virus spreads

and prevent it from spreading. The study aimed to assess knowledge and attitude regarding hepatitis B infection among nurses at Benadir hospital

Methodology

A descriptive hospital-based cross-sectional study design was used to conduct this study at Benadir Hospital in Mogadishu, Somalia, between December 23, 2021, and May 4, 2020.

The target population of the study

The study recruited nurses working at Benadir Hospital, Mogadishu, Somalia, through representative sampling.

Sample size and technique

The sample size was calculated based on SLOVENE's formula

$$n = N / (1 + N(e)^2)$$

Where:

n = sample size

N= total number population

E = a margin of error which is 5%

$$n = 120 / (1 + 120(0.05)^2)$$

The calculated sample size (n) was 92

Data collection methods and tools

Data collection was done through a structured questionnaire, and This questionnaire was developed concerning the existing researches conducted, and it contains questions related to demographic variables, knowledge, and attitude about hepatitis B infection. Knowledge scores were categorized as good, Poor, and Average, while the attitude section was categorized as positive and Negative.

Data analysis

SPSS was used to analyze the descriptive data statistics to describe the variables in this study; Chi-square was used to compare variables.

Ethical consideration

The faculty of medicine and health sciences, Jamhuriya University of Science and Technology, granted permission to conduct this study. The study also obtained permission from Benadir hospital administration. The Nurses in Benadir hospital were

recruited for this study only after agreeing with informed consent. The respondent's confidentiality was secured.

Results

Table 1. Demographic information (N=92) of nursing working in Benadir hospital, Mogadishu.

Variable	Frequency	Percentage (%)
Age		
21-30	47	51.1
31-40	35	38.0
41-50	6	6.5
Above 50	4	4.4
Sex		
Male	26	28.3
Female	66	71.7
Marital status		
Single	54	58.7
Married	29	31.5
Divorced	5	5.4
Widow	4	4.4
Education		
Diploma	24	26.1
Bachelor	51	55.4
Master	17	18.5

Table 1. a total of 92 nurses were participated in this study, out of 47 (51.1%) were 21-30, and 66 (71.7%) of respondents were female. The majority of participants had a bachelor's degree.

Assessment of knowledge towards HBV

Table 2. revealed that the majority of nurses, which is 76 (82%), had average knowledge of HBV infection, 11 (12%) of participants had good knowledge, and 5 (5.4) of respondents had poor knowledge.

Table 2. shows the level of knowledge (N=92) of nursing working in Benadir hospital, Mogadishu.

Knowledge level	Frequency	Percentage (%)
Good	11	12
Average	76	82.6
Poor	5	5.4

Assessment of attitude toward HBV infection

Table 3 of this study showed that most participants, 78(84.8%), had a positive attitude.

Table 3 shows the level of attitude (N=92) of nursing working in Benadir hospital, Mogadishu.

Attitude level	Frequency	Percentage (%)
Positive	78	84.8
Negative	14	15.2

Table 5. Shows the association of sociodemographic characteristics and level of knowledge among nurses (N=92) working in Benadir hospital, Mogadishu, Somalia

Variables	Level of knowledge			Total	X ²	P-value
	Poor	Average	Good			
Sex	1	23	2	26		
Male					2.484	0.289
Female	10	53	3	66		
Total	11	76	5	91		
Age						
21-30	4	39	4	47		
31-40	6	28	1	35		
41-50	1	5	0	6	3.810	0.702
>50	0	4	0	4		
Total	11	76	5	92		
Education						
Diploma	3	21	0	24		
Bachelor	6	43	2	51	6.577	0.160
Secondary	2	12	3	17		
Total	11	76	5	92		

Discussion

The study objective was to assess knowledge and attitude toward HBV infection among nurses at Benadir hospital. Overall, the majority of participants had average knowledge. This was reported in a similar study conducted in Khartoum, Sudan, with 58% of nurses had good knowledge of HBV infection. [6] the findings revealed that most participants, 86 (93.5%), said the primary route of transmission of HBV was through blood transfusion. Another study conducted among a group of health care workers in Yaoundé, Cameroon, showed that forty-seven percent (47 %) of

healthcare workers had a good level of knowledge of HBV infection. [7] The participant's attitude toward HBV infection was positive; this was agreed in another study conducted among health care workers in Mogadishu, Somalia. [8]

Conclusion

The findings of this study revealed that most of the nurses working at Benadir hospital had average knowledge regarding HB infection. There was no significant association between the level of knowledge with selected demographic variables in the study. Therefore, nurses' knowledge toward prevention of the

HB infection can be improved through continuing nursing education (CNE) and periodically assessed for their practice and follow infection control measures such as wearing gloves and vaccinated

workers in Yaoundé, Cameroon. *BMC Public Health*, 16(1), 1–7. <https://doi.org/10.1186/s12889-016-3388-z>

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Conflict of interests: No conflict of interests is declared.

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