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Hepatitis B Viral Infection Awareness amongst Female Adolescents in Rivers State, Nigeria.

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ABSTRACT

Background: Adolescents are vulnerable age groups who engage in unprotected sexual activities as well as intravenous drug abuse. They are at risk of contracting Hepatitis B Viral (HBV) infection due to fact that this virus is highly contagious. The Nigerian prevalence of HBV infection is 9.6%. The aim of this work is to determine the awareness of HBV infection amongst Adolescents in Rivers State, Nigeria.
Method: The survey was cross sectional study conducted among 100 female adolescents attending a holiday camp meeting in Rivers state, Nigeria. The duration of the camp was six-weeks. The level of awareness of HBV infection was determined amongst subjects were from secondary schools and undergraduates from universities in Rivers State, Nigeria. Permission for the study was granted by office of the Director of Public Health, Rivers State Ministry of Health. The information was coded and analysed using SPSS version 25.
Results: The number of female adolescents recruited for the study were 150. The mean age was 16.1 years, with the age range of 9. The distribution of the age were 10 - 14years represented by 32 (21.3%) of the respondents, 15-19years represented by 114 (76.1%) of the respondents and 20 – 24 years represented by 4 (2.6%) of the respondents. The distribution of the educational status were secondary school respondents were 96 (64.0%) while tertiary respondents were 54 (36.0%). Twenty (13.3%) of the female adolescents were sexually active. Eighty – one (54.0%) were aware of HBV infection. The commonest means of information for hepatitis B Viral infection by the respondents was through the media 42 (28.0%) followed by friends represented by 10 (6.7%) of the respondents. Sexual intercourse was the commonest means of transmission of HBV infection represented by 41 (27.3%) of the respondents.
Conclusion: This study revealed the level of awareness of hepatitis B viral infection amongst adolescent in as 54.0%. the commonest means of awareness was through the mass media (28%). in addition, the commonest means of transmission was through unprotected sexual intercourse represented by 27.3% of the respondents. The need for creating the awareness of HBV infection cannot be over emphasized amongst adolescents so as to minimize its transmission.

INTRODUCTION:

Hepatitis B uric infection is a blood borne disease and is one of the seven types of the hepatitis that has been recognized and identified as hepatitis A to G of which F is hypothetical.(1)

Hepatitis B uric infection is basically a disease of the liver and of public health importance globally. (1,2) It is highly infectious and the most common cause of chronic hepatitis, liver cirrhosis and hepatocellular carcinomia.(1-3) The Nigerian prevalence of HBV infection is 9.6%.[3] Available data from the World Health Organization indicates that approximately 296 million people are globally are infected with chronic HBV.(4-6)

As a result of the underlying reason the virus involved in its transmitted through blood and body fluids adolescents are highly at risk because they engage in unprotected intercourse and use of unsterilized intravenous drugs.(1-4)

Data available reveals that globally millions of people are living with viral hepatitis B and in addition myriad at risk.(1-2)

Majority of people infected long ago with hepatitis B viral infection have no idea that they have chronic hepatitis B viral infection (2-4). These individuals are at risk of having severe chronic liver disease and unknowingly transmit the infection to other persons including adolescent who engage in unprotected sexual intercourse and use of infected intravenous objects.(2,3)

In southern Nigeria or Nigeria School health program is yet to develop a clear cut curriculum on the (knowledge) awareness, including knowledge of hepatitis B viral infection amongst adolescents and prevention modalities of which this research work is determined to achieve by the academic arm of partnership with the mother, Baby and Adolescent Care Global Foundation.

Aim: To determine the awareness of HBV infection amongst Adolescents in Rivers State, Nigeria.

METHODOLOGY:

The survey was cross sectional study conducted among 150 female adolescents attending a holiday camp meeting in Rivers state, Nigeria. The duration of the camp was six-weeks. Demographic Variables age, gender, questions regarding the level of awareness of HBV infection was determined amongst subjects were from secondary schools and undergraduates from universities in Rivers State, Nigeria.. Permission for the study was granted by office of the Director of Public Health, Rivers State Ministry of Health. The information was coded and analysed using. All data transferred to excel and applied statistical test using SPSS version 25'

Sample Size Estimation

The sample size of 150 was calculated using the Kish Leslie formula for cross-sectional studies calculated, based on (9.6%) approximately 10% national prevalence of Hepatitis B Viral infection in Nigeria by Elegbedi AO et al [3] and a confidence level of 95%.

$n= Z^2Pq/d^2$

Where
n is the desired sample size
Z is the standard normal deviate usually set at 1.96, which corresponds to the confidence interval
P is the proportion of Nigerians with HBV infection = 10%
q is complementary proportion equivalent to one (1), that is 1- 0.1 equal to 0.9
d is the degree of accuracy desired which is 5.0% (0.05%)

$n= 1.96^2 \times 10 (1- 0.1)/0.05^2 = 153$

This was rounded up to the nearest whole number, the reason for using 150 as the sample size.

Inclusion Criteria:

Female adolescents who consented to the study.
Female adolescents between ages 11-years and 24-years

Exclusion Criteria:

Females below 11-years of age.
Females above 24-years old.

RESULTS:

The number of female adolescents recruited for the study were 150. The mean age was 16.1 years, with the age range of 9. The distribution of the age were 10 - 14years represented by 32 (21.3%) of the respondents, 15-19years represented by 114 (76.1%) of the respondents and 20 – 24 years represented by 4 (2.6%) of the respondents. The distribution of the educational status were secondary school respondents were 96 (64.0%) while tertiary respondents were 54 (36.0%). Twenty (13.3%) of the female adolescents were sexually active. Eighty – one (54.0%) were aware of HBV infection. The commonest means of information for hepatitis B Viral infection by the respondents was through the media 42 (28.0%) followed by friends represented by 10 (6.7%) of the respondents. Sexual intercourse was the commonest means of transmission of HBV infection represented by 41 (27.3%) of the respondents.

Table: 1

AGE		
N	Valid	150
	Missing	0
Mean		16.1011
Median		16.0000
Mode		17.00
Std. Deviation		1.79675
Variance		3.228
Range		9.00
Minimum		11.00
Maximum		20.00

Table 2: Sociodemographic distribution

		N	%
AGE GROUP	10-14	32	21.3%
	15-19	114	76.1%
	20-24	4	2.6%
LEVEL OF EDUCATION	SEC	96	64.0%
	TERTIARY	54	36.0%
	Total	89	100.0%

Table 3: Sexually active

	N	%
YES	41	27.3%
NO	95	63.3%
NO RESPONSE	14	9.4%

Table 4: Knowledge of hepatitis

		N	%
	NOT AWARE	64	42.7%
	YES	81	54.0%
	NO RESPONSE	5	3.3%
Means of information	Friends	10	6.7%
	Internet	3	2.0%
	Media	42	28.0%
	No response	56	37.3%
	None	22	14.7%
	Others	3	2.0%
	Religious house	14	9.3%
Means of transmission	Sexual intercourse	41	27.3%
	Intravenous drug users	17	11.3%
	Infected blood	3	2.0%
	Mother to Child	3	2.0%
	NO RESPONSE	86	57.3%
	Total	89	100.0%

DISCUSSION:

Our study revealed the awareness of HBV infection as 54.0% amongst adolescents in Port Harcourt, Rivers (table 4). This figure was lower than that of the study by Patil S et al in India where the awareness of HBV infection was 90.03% of the 300 Auxiliary Health workers (AHCWs) who were involved in the study.(2) This can be explained that since these group of persons are health workers, there level of awareness will most likely higher than those from our studies; since they have first hand information from professionals who took care of those infected by the HBV infection. In contrast to our study where the main medium of information was through the media represented by 28% (see Table 4). In the study conducted by Elegbede OE et al among undergraduates in a private University in Ekiti state Nigeria, the awareness of hepatitis B Virus vaccination was approximately 47% although this has to do with the vaccine not the virus and this figure was lower than for

the virus when compared with our study.[3] Our study revealed that 36% of our adolescents where tertiary institutions and is expected that they will have better awareness of HBV infection when compared with the other 64% of the respondents who were in secondary school (see table 2).

In a Ghanaian study by Kumah et al on the knowledge, attitude and practices towards Hepatitis B infection and Vaccination among Public Health Students in Ghana. The awareness of HBV infection was high with 58.8% of the respondents haven been vaccinated. The level of awareness was higher than that from our study which was 54%.(7)

The mean age from our study was 16.1 years which was lower when compared with the mean age of 20 years when with the study by Elegbede OE et al in Ekiti western Nigeria. In both studies the age groups are within the adolescent age bracket, they are vulnerable when it comes to contracting HBV infection. This could be attributed to their engaging in unprotected sexual intercourse.(1) The adolescent age group are also under peer pressure which of which they may be prone to the use of unsterilized intravenous abuse of illicit drugs.(3)

Our study showed that 11.3% of the female adolescents were of the opinion that HBV infection could be transmitted by unsterilized intravenous users. However, in a research conducted in Jordan among Healthcare students they showed good health practice in the prevention of HPV infection with an awareness level showing as high as 63.9%. This figure is higher than that gotten from our study.(8)

In a study by Linh Nguyen TT et al in Vietnam the knowledge and practice towards HBV among students in Medicine was 74%, this was higher than that of our study which was 54%.(9,10)

CONCLUSION:

This study revealed the level of awareness of hepatitis B viral infection amongst adolescent in as 54.0%. the commonest means of awareness was through the mass media (28%). in addition, the commonest means of transmission was through unprotected sexual intercourse represented by 27.3% of the respondents. The need for creating the awareness of HBV infection cannot be over emphasized amongst adolescents so as to minimize its transmission.

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CONFLICT OF INTEREST:

Authors declares no conflict of interest.

ETHICAL CONSIDERATION:

Permission for the study was granted by the office of the Director of Public Health Rivers State Ministry of Health in line with the Helsinki Declaration (revised 2013)

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