

Awareness and Uptake of Hepatitis B Vaccination Among Adolescents and Young People in a Tertiary Educational Institution in Nigeria

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Awareness and Uptake of HBV vaccination were low. Being currently married or previously married were significant predictors of uptake of Hepatitis B vaccine.

BACKGROUND

- Hepatitis B virus, HBV, is a major contributor to global morbidity and mortality
- African is disproportionately affected, about 25.6% of global chronic infections occur in the region, Nigeria records a high prevalence
- Adolescents and young people, including those in tertiary institutions engage in practices such as unsafe sex and injection of drugs, behaviours which may put them at an increased risk of infection with HBV
- Nigeria has adopted the HBV vaccine, which has been reported as 100 percent effective, but uptake is reportedly low.
- This study assessed the awareness and uptake of HBV vaccination among undergraduate students in Ahmadu Bello University, Nigeria.

METHODS

- Cross-sectional study of 429 first degree students selected through multi-stage sampling
- Data was collected using a pretested questionnaire mounted on the Open Data Kit (ODK) on android devices
- Participants' socio-demographic characteristics and knowledge of vaccine were collected and analyzed using IBM SPSS version 26 software
- Association between variables were tested using the Chi-square or Fisher's Exact. Binary logistic regression to identify predictors of vaccine uptake was done with variables included based on statistical ($p < 0.1$) and theoretical relevance
- The study was approved by the Health Research and Ethics Committee of the Ahmadu Bello University Teaching Hospital, Zaria, Nigeria

RESULTS

- Mean age was 24.5(SD 3.5) years. Majority 353(82.3%) were unmarried
- Only 270(62.9%) aware of vaccine, 139(51.5%) knew recommended doses and 237(87.8%) did not know about the duration of protection the vaccine provides.
- Vaccine uptake was quite low, only 98(22.8%) having received at least one dose
- while 58(13.5%) have had three doses
- Reasons given for not vaccinating were; not knowing where to get vaccine, perceived as not necessary to vaccinate
- Vaccine uptake was associated with age (FE=6.919, $p=0.027$), religion (FE=7.056, $p=0.014$), marital status (FE=33.352, $p<0.001$), students' department ($\chi^2=7.248$, $p=0.010$), study level ($\chi^2=10.055$, $p=0.002$), and perceived vaccine effectiveness (FE=25.618, $p<0.001$)

RESULTS CONTINUED

Table 1: Predictors of uptake of HBV vaccination

Variable	Crude			Adjusted		
	OR	p-value	95% C.I.	OR	p-value	95% C.I.
Age in years						
15 - 24	Ref					
25 - 34	1.926	0.120	1.156 - 3.207	0.721	0.389	0.342 - 1.518
≥35	2.514	0.366	0.341 - 18.510	0.350	0.425	0.027 - 4.606
Sex						
Female	Ref			Ref		
Male	0.869	0.598	0.516 - 1.464	1.071	0.839	0.553 - 2.075
Ethnicity						
Hausa/Fulani	Ref			Ref		
Igbo	0.524	0.435	0.103 - 2.651	1.005	0.996	0.165 - 6.132
Others	0.342	0.036*	0.125 - 0.931	0.578	0.329	0.192 - 1.737
Marital status						
Single	Ref			Ref		
Married	5.518	<0.001*	2.909 - 10.465	7.815	<0.001*	3.380 - 18.071
Divorced/Widowed	10.737	0.035*	1.175 - 98.101	14.79	0.028*	1.342 - 163.045
Department						
Non-Medical	Ref			Ref		
Medical	1.995	0.007*	1.203 - 3.309	1.771	0.079	0.935 - 3.353
Study level						
Lower level	Ref			Ref		
Higher Level	2.676	0.002*	1.438 - 4.981	1.676	0.220	0.735 - 3.823
Perceived effectiveness						
Not/Slightly effective	Ref			Ref		
Very effective	3.253	<0.001*	1.704 - 6.210	2.631	0.015	1.202 - 5.758
I don't know	0.751	0.484	0.337 - 1.674	0.577	0.231	0.234 - 1.421

Model summary (Adjusted): $\chi^2=68.893$, $df=11$ $p<0.001$ $R^2=0.308$

*Statistically significant at $p<0.05$, OR: Odds ratio, CI: Confidence interval

CONCLUSIONS

- Low awareness and low vaccine uptake
- Need for interventions to address this gap to contribute towards elimination of HBV threat globally

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ADDITIONAL KEY INFORMATION

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