

Knowledge and Uptake of Human Papillomavirus Vaccine Among Adolescent Girls in Selected Secondary Schools in Kubwa, Abuja

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ABSTRACT

Background: Human Papillomavirus (HPV) is the leading cause of cervical cancer, which remains a significant public health burden in Nigeria. Despite the availability of safe and effective HPV vaccines and Nigeria's nationwide vaccination program launched in October 2023, knowledge gaps and low vaccine uptake persist among adolescent girls, the primary target population.

Objective: This study assessed the knowledge and uptake of the HPV vaccine among adolescent girls in selected secondary schools in Kubwa, Abuja, and examined the association between knowledge level and vaccine uptake.

Methods: A descriptive cross-sectional study was conducted among 217 female students aged 10-18 years in six selected secondary schools (three public and three private) in Kubwa, Abuja. A multistage sampling technique was employed, and data were collected using a semi-structured, self-administered questionnaire. Data analysis was performed using SPSS, employing descriptive statistics, bivariate analysis, and chi-square to examine the relationship between HPV knowledge and vaccine uptake. Statistical significance was set at $p < 0.05$.

Results: The majority of respondents (60.8%) had not heard of HPV, while 52.5% were aware of the HPV vaccine. Among those with knowledge, 54.4% correctly identified HPV as a virus, 37.3% knew sexual contact as the primary transmission route, and 47.9% identified cervical cancer as a health concern. Knowledge regarding vaccine safety (57.6% uncertain) and dosage requirements (73.7% uncertain) was particularly poor. HPV vaccine uptake was low at 16.6%, with 83.3% of vaccinated respondents having received only one dose. Primary barriers to vaccination included lack of awareness (43.1%), parental disapproval (31.5%), and fear of side effects (21.0%). Schools were the predominant source of vaccine information (63.1%). Chi-square analysis revealed a strong positive association between knowledge level and vaccine uptake with knowledge explaining 87.6% of the variance in vaccine uptake ($R^2 = 0.876$).

Conclusion: Knowledge about HPV and its vaccine remains inadequate among adolescent girls in Kubwa, Abuja, directly impacting vaccine uptake rates. The strong positive association between knowledge and uptake emphasizes the role of health education in improving vaccination coverage. Comprehensive school-based health education programs, parental engagement and strengthened vaccination delivery systems are needed to address knowledge gaps, dispel misconceptions, and improve HPV vaccine acceptance among Nigerian adolescents.

Keywords: Human Papillomavirus, HPV Vaccine, Adolescent Girls, Knowledge, Vaccine Uptake, Cervical Cancer Prevention, Secondary Schools, Nigeria

