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Acceptability of human papilloma virus vaccination among primary school girls in Minakulu sub-county, Northern Uganda

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Uganda has one of the youngest populations in the world, with 50% of the population aged below 15 years according to the Population Research Bureau. In 2007, the Uganda Bureau of Statistics approximated the median age for sexual debut among Ugandan girls as 17.5 years, although 11.1% of the girls have initiated sexual activity by the age of 15 years. This suggests the urgency of targeting young adolescent girls before exposure to the virus that causes cervical cancer before their first sexual intercourse. The human papilloma virus (HPV) vaccine (Guardasil; Merck and Co., New Jersey, USA) has undergone successful trials and has recently been approved by the FDA and adopted by the Uganda Ministry of Health for primary prevention of cervical cancer among girls aged 9–13 years in 12 districts in Uganda.

With cervical cancer being the common cancer and on average affecting women at 47 years, many school-going girls have different perceptions of and attitudes to the HPV vaccination, leading to delayed or no acceptance of the vaccine. Hence, there is a need to assess the quality and quantity of knowledge and attitudes on the acceptability of HPV vaccination among primary school girls to plan targeted interventions to prevent this condition in Uganda.

This cross-sectional study determined the knowledge, attitudes to, and acceptability of HPV vaccination among primary school girls aged 9 years and older in Minakulu sub-county, Northern Uganda. The sample size was determined using the formula of Kish (1965). Systematic sampling of 415 pupils and five purposively selected key informant interviews were conducted using semistructured questionnaires and the key informant checklist. Quantitative data were analyzed using SPSS 16.0 (SPSS Inc., Chicago, Illinois, USA), whereas qualitative data were analyzed manually by direct content analysis of themes. The study was approved by the Institutional Review Committee of Gulu University (GU/IRC/14/03/13). Privacy and confidentiality of information and voluntary assent/withdrawal were allowed. Consent was sought from parents, guardians, and teachers for pupils younger than 14 years of age.

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Conflicts of interest

There are no conflicts of interest.

All participants were from a mixed school setting. Of the 415 respondents, majority were between 13 and 16 years of age [282 (68.0%); mean 13±1.66 years at 95% confidence interval; age ranged from 9 to 20 years]. The majority of respondents were Catholics [320 (77.1%)], Lango [395 (95.2%)], studying in primary six [137 (33%)], and day scholars commuting from home [397 (95.7%)].

When asked whether cervical cancer affects only females, the majority agreed [332 (80.0%)], 40 (9.6%) disagreed, 38 (9.2%) were not sure, and five (1.2%) did not respond to the questions. In response to the question of whether ‘Cervical cancer is caused by a virus’, the majority of respondents agreed [206 (73.7%)], 60 (14%) disagreed, and 49 (12%) were not sure.

When asked whether HPV is sexually transmitted, the majority agreed [266 (64.1%)], 85 (20.5%) disagreed, 57 (13.7%) were not sure, and seven (1.7%) did not respond. In response to the statement that ‘Cervical cancer affects the cervix’, the majority [305 (73.5%)] agreed, 68 (16.4%) disagreed, 31 (7.5%) were not sure, and 11 (2.7%) did not respond. Of the 415 respondents studied, the majority had heard about cervical cancer vaccination [289 (69.6%)], 124 (29.9%) had never heard about it, and two (0.4%) did not respond. The majority of respondents [283 (68.2%)] believed that HPV vaccination can help in the prevention of cervical cancer, although 16 (3.9%) disagreed, 36 (8.7%) were not sure, and 80 (19.3%) did not respond to the questions.

The majority of respondents [344 (82.9%)], stated that they would recommend the HPV vaccine to primary school girls, whereas 71 (17.1%) stated that they would not. The study observed that only 176 (42.4%) of the respondents had been vaccinated. The majority of respondents [401 (96.6%)], believed that the HPV vaccine was important to them and believed that it would be highly acceptable among their friends [382 (92.0%)]. The majority of respondents [380 (91.6%)], wished to seek relevant information on cervical cancer vaccination from relevant authorities. When asked what best can be done to improve the acceptability of cervical cancer vaccination services, the majority of respondents suggested that it should be taught as part of health education in the primary school curriculum [371 (89.4%)], a good number cited provision of teaching materials to teachers and school libraries [350 (84.3%)], and others recommended that it should be taught by health workers on school visits other than teachers [262 (63.1%)].

There was a statistically significant association between respondents’ school settings and acceptability of HPV vaccination ($\chi^2=27.111$, $P=0.003$, 95% confidence interval). There was no statistically significant association between age, religion, tribe, residents, and acceptability of HPV vaccination.

Although cervical cancer remains a public health priority in Uganda, this study indicated misconceptions about cervical cancer and the HPV vaccine; nearly half of the respondents believed that the HPV vaccine was harmful to their body, a third had never been vaccinated with the HPV vaccine, less than 10% disagreed when asked whether cervical cancer affects only females, whereas others were not sure of the possible outcomes. A good number did not know whether HPV was sexually transmitted and whether the cancer affected the cervix.

Two-fifth of the respondents were not sure about the site of administration of the HPV vaccine; yet, over half of the respondents wished to seek this information from their teachers, who reported to have inadequate knowledge.

Although HPV vaccination was highly acceptable, with positive attitudes among primary school girls, there were still mixed reactions and wrong perceptions about the intervention. Although the majority stated that they would accept and recommend the vaccine, the majority had not been vaccinated. However, most respondents had a general belief that vaccines prevent diseases, based on an earlier PATH Ugandan survey. Although this study shows that people generally supported HPV vaccination, respondents emphasized the need to carry out massive sensitization as vaccination for primary prevention of cervical cancer is generally a new concept, a fact that could explain the low level of knowledge found.

Attitudes and acceptability to HPV vaccination were high, although only a few respondents had been vaccinated. There was still limited knowledge and misconceptions about cervical cancer and the HPV vaccine in the communities. There is a huge need for massive sensitization of the population at risk to increase vaccine uptake.

References

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