A REVIEW ON FACTORS ASSOCIATED WITH HPV VACCINATION IN AFRICA

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Abstract

Human papillomavirus (HPV) infection is the most common sexually transmitted infection worldwide. It is estimated that 75% of sexually active men and women will acquire HPV infection in their lifetime. HPV infections are most prevalent in young adults, as sexual risk behaviors are greatest in this age group. The comprehensive search strategy with the help of an information from google scholar, web of science, scopus, pubmed central, semantics, LiveDNA, etc was done. **The review** highlight the need for the development of additional interventions and policies to improve vaccination among SMs. Recently, researchers and clinicians have called for policy to make HPV vaccination mandatory among service members. In the absence of such a policy, however, interventions should be developed to aid in improving HPV vaccination rates. The highlight specific groups of service members that could be targeted through such interventions. A number of both individual and community factors were significantly associated with HPV vaccination. The Odds of HPV vaccination were higher among girls age; 11, 13, and 14 compared to girls age 10 years, attending school compared to girls not attending school, who were; foreigners, Iteso, Karamajong, Banyoro, Basoga, and other tribe compared to Baganda, living in families with 1–8 members compared to those living in families with

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9 or more members and middle social economic status compared to poor wealth quintile. There is no comprehensive systematic review that has assessed interventions to improve HPV vaccination coverage across all country income categories. These limitations justify the need for a comprehensive systematic review on the interventions to improve HPV vaccination coverage.

Keywords: Vaccine, human papilloma virus, cervical cancer, vaccination, sexually transmitted diseases, Africa

Introduction

The most prevalent sexually transmitted infection in the world is human papillomavirus (HPV) infection. Although there are three prophylactic HPV vaccines that are currently available and are safe and effective, HPV vaccination rates are still low. Numerous evaluated interventions, including provider prompts, training, training plus assessment and feedback, consultation, funding, and multicomponent interventions, have improved HPV vaccination coverage. These include narrative education, outreach plus reminders, reminders, financial incentives plus reminders, brief motivational behavioral interventions, and outreach plus reminders. However, these interventions' evaluations were carried out in high-income nations, primarily the United States of America. Therefore, studies are required to determine how well these interventions work in low- and middle-income nations, where the prevalence of HPV is high and there are few HPV vaccination programs (Acampora *et al.*, 2020; Low and Schiller, 2006)

Human Papilloma Virus vaccination compliance

In the majority of developing nations, there is a high rate of HPV vaccination compliance. Parents and guardians of pre-teen girls lacked adequate information about the HPV vaccine and cervical cancer, and this ignorance adversely affected vaccination compliance. Deficits in attitude and worries about

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the harmful effects of the HPV vaccine were significant obstacles to vaccination. In private schools, HPV vaccination was less common than in public schools; further research is required to confirm and comprehend this relationship (Farias et al., 2016)

Of the 70 studies found, 40 were included. Perceived benefits of the HPV vaccine, anticipatory regret, partner's opinion that one should receive the vaccine, and healthcare provider recommendation had medium effect sizes. The following factors, however, had smaller effects on HPV vaccine acceptability: need for multiple shots, fear of needles, fear of side effects, supportive or accepting social environment, perceived risks to HPV, HPV awareness, and perceived effectiveness of the HPV vaccine.

Uganda has a high incidence of cervical cancer despite a low HPV vaccination rate. For targeted interventions, it is essential to identify the personal and social factors related to HPV vaccination. However, despite their significant impact on HPV vaccine uptake, individual and contextual determinants have not been sufficiently studied in the majority of Low and Middle Income Countries (LMICs), including Uganda. The study's objective was to pinpoint individual (school attendance rates, girls' ages, ethnicities, and levels of media exposure), as well as collective (socioeconomic disadvantages), variables linked to HPV vaccination (Isabirye et al., 2020).

Factors associated with Human Papilloma Virus vaccination uptake

An essential tool for preventing and managing HPV infection and its complications is HPV vaccination (Mavundza et al., 2021). According to statistics from Uganda, 3500 women receive new cervical cancer diagnoses every year, and 2400 of them pass away. At the Uganda Cancer Institute, cervical cancer affects eight out of every ten women. According to projections, Uganda will experience 6400 new cases of cervical cancer each year by 2025, along with 4300 fatalities (Isabirye et al., 2020).

Although it is safe, effective, and advised, HPV vaccination rates are still low. There are many obstacles to HPV vaccination, such as a lack of health care provider recommendations, safety and side effect Akandinda, M., Obeagu, E.I., Madekwe, C.C. and Nakyeyune, S. (2022). A Review on Factors Associated with Human papilloma virus in Africa. Madonna University Journal of Medicine and Health Science. 2 (3):1-5.

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concerns, as well as a general lack of awareness and knowledge about HPV vaccination (Mavundza et al., 2021) Based on only two studies, more investigation is required to examine the negative correlation between partner opinion that a person should receive the HPV vaccine and HPV vaccine acceptability (Newman et al., 2013).

The majority of cases of cervical cancer may be avoidable. Primary cervical cancer prevention, which involves immunizing girls between the ages of 9 and 14 against HPV before they are exposed to sex, is acknowledged by both the World Health Organization (WHO) and Uganda's Ministry of Health (MOH) as a key element in cervical cancer prevention (Isabirye et al., 2020)

Conclusion

Therefore, there is a critical need for efficient interventions to increase HPV vaccination rates and lower the incidence of cancers and infections linked to HPV. Reviews of various interventions to increase HPV vaccination coverage have been conducted.

References

Acampora, A., Grossi, A., Barbara, A., Colamesta, V., Causio, F.A., Calabrò, G.E., Boccia, S. and de Waure, C. (2020). Increasing HPV Vaccination Uptake among Adolescents: A Systematic Review. Int J Environ Res Public Health. 17(21):7997

Farias, C. C., Jesus, D. V., Moraes, H. S., Buttenbender, I. F., Martins, I. S., Souto, M. G., Gonçalves Filho, P. H. B. H., Costa, R. M., Silva, S. D. O., Ferreira, T. S. I., Coutinho, V. V. D. S., Minotto, H. R. T., & Fonseca, A. J. (2016). Factors related to non-compliance to HPV vaccination in Roraima - Brazil: A region with a high incidence of cervical cancer. BMC Health Services Research, 16(1), 1–9. https://doi.org/10.1186/s12913-016-1677-y
Isabirye, A., Mbonye, M., Asiimwe, J. B., & Kwagala, B. (2020). Factors associated with HPV vaccination uptake in Uganda: a multi-level analysis. 1–11.

Lowy ,D.R. and Schiller, J.T. (2006). Prophylactic human papillomavirus vaccines. J Clin Invest.116(5):1167-73.

Inc.2022http://madonnauniversity.edu.ng/journals/index.php/medicine

- Matsuno, R. K., Seay, J., Porter, B., Tannenbaum, K., Warner, S., & Wells, N. (2022). Factors Associated with Human Papillomavirus Vaccine Initiation and Compliance Among U.S. Military Service Members. *Military Medicine*, 00, 1–9. https://doi.org/10.1093/milmed/usab562
- Mavundza, E. J., Iwu-Jaja, C. J., Wiyeh, A. B., Gausi, B., Abdullahi, L. H., Halle-Ekane, G., & Wiysonge, C. S. (2021). A systematic review of interventions to improve hpv vaccination coverage. *Vaccines*, *9*(7), 1–30. https://doi.org/10.3390/vaccines9070687
- Newman, P. A., Logie, C. H., Doukas, N., & Asakura, K. (2013). HPV vaccine acceptability among men: A systematic review and meta-Analysis. *Sexually Transmitted Infections*, 89(7), 568–574. https://doi.org/10.1136/sextrans-2012-050980