



VACCINE DELIVERY STRATEGIES: PAEDIATRICIANS' PERSPECTIVES

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ABSTRACT

Paediatricians will be responsible for vaccinating children against the Human Papillomavirus (HPV). We looked at the opinions of paediatricians regarding the delivery of HPV vaccines and their plans for ensuring that the vaccines are delivered effectively. As part of a targeted sampling strategy, paediatricians from a three-state region were recruited. Participants were interviewed in-depth utilising a semi-structured style. Framework analysis was used to analyse qualitative data. 17 (55%) female participants, ranging in age from 30 to 78 years old Participants referenced from a cultural background in making an HPV vaccine recommendation. However, participants' perspectives on whether vaccination should be mandated by law varied widely. Advocates for immunisation mandates pointed out that they may potentially increase vaccine effectiveness, while detractors pointed out that HPV is not transmitted casually and were concerned about the inadequate research on long-term safety and efficacy of HPV vaccinations. Regarding STI vaccines for adolescents, paediatricians observed that particular measures would be needed, especially given the poor public awareness about HPV. Some of these measures include the provision of HPV vaccines in alternative venues, instructions for paediatricians on how to deal with parental concerns, and particular educational activities. While developing HPV vaccine delivery systems, children and adolescents who have been immunised for many years will be able to provide useful advice.

Keywords: Paediatrician; Immunization; Human papillomavirus; Delivery; strategy sexually transmitted infection; Mandate Qualitative.



1. Introduction

HPV infection in the anogenital region, often known as HIV/AIDS or HPV, is one of the most frequent sexually transmitted illnesses (STI). This vaccine was likened for use in the “United States by the Food and Drug Administration” in 2006[2]. For girls aged 11 to 12, as well as those aged 13 to 26 and women who have never been immunised, the “Advisory Committee on Immunization Practices (ACIP)” has advised that they be immunised. Vaccines against HPV will be administered by physicians since girls in the targeted age group are more likely to consult a pediatrician. Immunization decisions are heavily influenced by doctor recommendations[3]. Public health programmes for HPV vaccination will benefit from pediatricians’ insights on effective HPV vaccine delivery systems [1]. Studies on pediatricians’ attitudes toward the HPV vaccine have been conducted in the past[4]. This research gave useful insight into pediatricians’ personal motivations, but it did not focus on practical difficulties connected to vaccination distribution, which are crucial for vaccine effectiveness. It was unable to detect all pediatrician viewpoints on vaccination distribution tactics or to understand the rationale behind them since the quantitative methodologies used were imprecise. , we carried out a qualitative study with the aim of achieving two objectives. Children's physicians' perspectives toward HPV vaccine distribution were explored in the first study, including cultural factors, targeted vs. universal immunisation tactics, and legislative mandates. On another front, we were interested in finding out what vaccination strategies pediatrician’s thought would be most effective. “These included clinical and public health initiatives aimed at increasing vaccination rates, as well as strategies designed to meet the educational needs of providers, parents, and adolescents”[5].

2. Methodology

Pediatricians came from three states in India that bordered the metropolitan area. Pediatricians of diverse nationalities and from different backgrounds were recruited using a deliberate sampling technique (Table 1). For hospitalisation or specialty care, most of these pediatrician’s refer their patients to the local children's hospital. It wasn't until we reached one of our analysis's key goals



— informational redundancy — that we realised we'd reached the target. “According to the hospital's Institutional Review Board”, the study has been approved[6]. “The hospital's Institutional Review Board” gave it the thumbs up. This summer, two research coordinators went to pediatricians’ clinics to conduct research on children. Pediatricians provided informed consent before participating in a short survey to measure sociodemographic variables, practice features, and experience with teenage patients. A research coordinator conducted 30- to 60-minute interviews with each participant, while a second researcher made thorough field notes. When asked about HPV vaccinations in development, the interviewer provided a brief overview of the topic before taking questions from the audience. In the near future, two HPV vaccines are expected to be available for preadolescents and early adolescents, she said. A bivalent vaccine targeting types 16 and 18 could prevent roughly 70 percent of cervical cancer and 90 percent of genital warts. In order to measure pediatricians’ perceptions, we asked them a series of open-ended questions concerning the HPV vaccination delivery method. Discussion topics included HPV vaccination from a cultural perspective as well as the use of targeted versus universal vaccines for school enrollment [7].

| | N (%) | Mean (SD) |
|----------------------------------|---------|-------------|
| Age (years) | | 46.9 (11.8) |
| Gender | | |
| Female | 17 (55) | |
| Male | 14 (45) | |
| Type of clinical practice | | |
| Primary care pediatrics | 19 (61) | |
| Medicine/pediatrics | 4 (13) | |
| Subspecialty care pediatrics | 4 (13) | |
| Academic primary care pediatrics | 2 (6) | |
| In training | 2 (6) | |
| Practice setting | | |
| Urban | 15 (48) | |
| Suburban | 15 (48) | |
| Rural | 1 (3) | |



| | |
|---|---------|
| Ambulatory Pediatric Association | 5 (16) |
| Other | 7 (23) |
| Number of preadolescents and adolescents seen per week in practice | |
| 9- to 12-year-olds | |
| 1-10 | 2 (7) |
| 11-25 | 9 (29) |
| 26-49 | 11 (36) |
| ≥ 50 | 9 (29) |
| 13- to 15-year-olds | |
| 1-10 | 9 (19) |
| 11-25 | 11 (36) |
| 26-49 | 9 (29) |
| ≥ 50 | 5 (16) |

Table 1: Study sample characteristics[7]

“Interviews were taped and transcribed; transcripts and field notes were edited.” Each member of the team used this technique to develop a common understanding of how to interpret the results of their qualitative data analysis.

3. Results

3.1 HPV vaccination and social norms

When it comes to HPV vaccines for pre-adolescence, almost all participants felt that cultural considerations were relevant when suggesting them; however their definition of “cultural” varies. Racial or ethnic identity or financial status is usually viewed as cultural factors. About half of the participants discussed how parents' religious beliefs could influence their children's acceptance of an HPV vaccine. Parents from "fundamentalist religious groups who are strongly anti-sexual behaviour" or other religions with a traditional view of sexuality, say some, would be a challenge to manage as one participant put it: Islam is "culturally more conservative" when it comes to sexual issues, and fundamentalist religious communities are no exception. Therefore, these parents "may believe that by giving [their child] the vaccine, they're virtually condoning that behaviour." Parents' fear or rejection of vaccination due to other belief systems (holistic,



naturopathic) was also examined. Not even mentioning vaccinations to some of my parents is an option for me.

As noticed by a few of the participants, vaccine opponents seem to be more educated than vaccine supporters. “Rich, white, suburban youngsters are less likely to participate in sexual activity, according to some physicians and parents, which could lead to decreased immunisation rates in these populations: Because they believe their children are not at risk for HPV, parents may not want to get the HPV vaccine.”[8]

3.2 Common approaches for HPV vaccination

Everybody who needs it should be able to receive it.[9] Its conviction that anybody who engages in sexual activity is at risk for HPV infection, and that “no racial or ethnic group has an exclusive right to acquire cervical cancer. As a result, it is difficult to know whether individuals or groups are at risk for HPV infection. In the opinion of a small number of pediatrician’s who advocated for targeted vaccination, certain groups of adolescents were at a higher risk for HPV or cervical cancer than other groups.

3.3 Mandatory laws for HPV vaccination

About one-third of pediatrician’s feel HPV vaccination should be required for schooling, while the other one-third disagrees. “I’m in favour of mandatory vaccination because it’s a public health concern,” stated one pediatrician. As for the public health issue, “I believe we can have a substantial impact on it.” In reality, that’s the only way you’ll be able to vaccinate those patients who are part of the system.

3.4 Public health approaches to increase vaccination

To make HPV vaccination a success in the near future, pediatricians believe numerous techniques will be necessary. All parties involved in the process were taught on the most efficient ways of vaccinating children and office-based processes and regulations were created to promote vaccination uptake. “To overcome HPV infection, most respondents advocated developing vaccination schedules that require fewer injections, developing options for oral or



nasal administration, using less painful injection systems and combining HPV with other vaccines aimed at early adolescents” (such as the tetanus/diphtheria pertussis vaccine) [10]. Health care providers are encouraged to follow vaccine recommendations from the “Center for Disease Control and Prevention (CDC)”, which include screening charts, computerised recall systems, informational mailers, required annual check-ups, as well as vaccination during sports physicals or urgent care visits. When “CDC, FDA and AAP” all give it the thumbs up, then we're in business, he says with confidence. Additionally, the significance that professional organisation endorsements have on health care provider recommendations for parental acceptance was explored. A doctor's conviction that [adolescents] must participate and parents' trusts in your ability to follow through are factors that increases the likelihood that they will.

3.5 Approaches to meeting educational requirements related to the HPV vaccine

Health care practitioners and families were educated on HPV vaccines by the participants. So, grand rounds and written materials (information sheets, policy statements from professional organisations) were preferred by the study's participants over unreliable sources of information. Local experts were the preferred sources of information for lectures and seminars (such as infectious disease specialists in children). The number of participants who cited online educational activities, websites with information and suggestions, CD-ROMs, and e-mail as sources of information and recommendations has decreased during the past few years. According to participants, statistics on HPV prevalence, descriptions of HPV-related diseases and their health impacts, and HPV susceptibility in one's patient group are the most important HPV information. Immunity length and contraindications were other important factors to consider so that clinicians could make educated judgments about immunizations[11].

4. Discussion

In this study, pediatricians' attitudes and strategies for giving the HPV vaccine were reviewed. By way of an example, we used qualitative methods to determine the rationale behind various viewpoints and presented strategy recommendations. Providers should consider the cultural and



religious beliefs of adolescent girls and parents when recommending HPV vaccinations. Cultural differences must be considered when discussing HPV vaccines with specific groups, however participants in this study were more concerned with how difficult they thought such discussions would be. HPV vaccinations were endorsed by just a tiny number of responders. Successful HPV vaccination requires consideration of cultural or religious attitudes that may influence the acceptance of the vaccine.

5. Conclusion

A doctor's input will be needed to implement methods based on best practices for HPV vaccine administration because they have substantial experience caring for adolescents and providing immunizations. For example, the current discussion over HPV vaccine regulations could have the unintended impact of decreasing vaccination rates if they are not taken into account when adopting or amending public health policies and legislation.

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