



RESEARCH ARTICLE

Provider Recommendations for the HPV Vaccine: A Qualitative Study of Parent-Provider Interactions

Meers JM^{1*}, Short MB², Zimet GD³, Rosenthal SL⁴ and Auslander BA⁵

¹Department of Psychology, University of Houston, USA

²Department of Psychology, University of Houston-Clear Lake, USA

³Division of Adolescent Medicine, Department of Pediatrics, Indiana University School of Medicine, USA

⁴Division of Child and Adolescent Health, Department of Pediatrics, Columbia College of Physician and Surgeons, NewYork Presbyterian Morgan Stanley Children's Hospital, USA

⁵Division of Adolescent and Behavioral Health, Department of Pediatrics, University of Texas Medical Branch at Galveston, USA

*Corresponding author: Jessica Meers, MA, Department of Psychology, University of Houston, 4849 Calhoun Rd, Houston, TX 77204-6022, USA, Tel: +713-743-1023, Fax: +409-747-4418, E-mail: jmmeers@uh.edu



Abstract

HPV vaccination is recommended for all adolescents aged 11 and 12; however, parental hesitancy about HPV vaccination contributes to lower than anticipated rates of uptake. Recommendations from healthcare providers are associated with increased parental vaccine intentions and uptake, but many providers fail to deliver strong recommendations. We sought to describe provider-parent communications about HPV vaccination in a sample of vaccine-hesitant parents. Twenty-eight vaccine-hesitant parents completed qualitative interviews regarding HPV vaccination planning and follow-through. Parents who ultimately vaccinated their child noted their providers were quick to provide a firm recommendation while simultaneously addressing their concerns. In those parents that had not vaccinated, most recalled never discussing vaccination with their provider. Several noted that they depended on their provider to inform them of all necessary vaccines, suggesting that no mention of the vaccine implied nonimportance. Those who chose not to vaccinate expressed appreciation for providers who respected their autonomy and decision not to vaccinate. These data provide support for the influence of provider recommendation on parents HPV vaccine decisions, while highlighting the importance of the provider's approach to recommendations. A balanced approach that couples a firm recommendation with respect for parental autonomy may lead to increased vaccine uptake.

Keywords

HPV, Adolescent, Vaccine

Human papillomavirus (HPV) is the leading cause of cervical as well as several other cancers [1-4]. The U.S. Advisory Committee on Immunization Practices [5] recommends routine HPV vaccination for all adolescents (males and females) aged 11 and 12. Catch up vaccination for those who have not previously vaccinated is routinely recommended for all females through age 26 years and for all males through age 21 years. The HPV vaccine is administered in a 2 or 3-dose series depending on the age the series was initiated. Despite these guidelines, vaccination rates remain low and trends over time suggest that the rates are plateauing [6]. Parental hesitancy about HPV vaccination is a common contributing factor to these lower than desired rates [7].

A healthcare provider's recommendation of the vaccine is associated with increased parental vaccine intentions and uptake. This is particularly true when parents perceive the recommendation to be "strong" [8,9]. The Centers for Disease Control (CDC) suggests that a "strong" vaccine recommendation is one in which the provider uses a presumptive format and pursues the recommendation, even in the face of parent hesitancy [10]. Nonetheless, recent studies have shown that providers often fail to use this approach. Instead, many treat the vaccine as optional or easily delayed and fail



Citation: Meers JM, Short MB, Zimet GD, Rosenthal SL, Auslander BA (2017) Provider Recommendations for the HPV Vaccine: A Qualitative Study of Parent-Provider Interactions. Int Arch Public Health Community Med 1:004

Received: September 29, 2017; **Accepted:** December 28, 2017; **Published:** December 30, 2017

Copyright: © 2017 Meers JM, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

to pursue recommendations when faced with parental dissent [7,8,11,12].

A better understanding of the current recommendation practices of healthcare providers will be essential for the development of specific intervention practices to increase HPV vaccination and to manage parental hesitancy. An understanding of parents' perceptions of these interactions with their providers may provide greater insight into the concerns and assumptions of vaccine-hesitant parents. Thus, we sought to describe vaccine hesitant parents' experiences of their communications with their adolescent's providers about HPV vaccination. This included descriptions of the content and style of the recommendation delivery, and their overall satisfaction with the communication.

Methods

Participants & recruitment

Participants were recruited from a group of 445 parents of adolescents who participated in a previous study designed to promote HPV vaccine intentions among parents of adolescents eligible to receive services at a School-Based Health Center (SBHC; [13]). The SBHC provides free health care services to all children and adolescents (ages 0 to 21) in Galveston County, Texas, including immunizations for those who are eligible for free vaccines through the Texas Vaccines for Children program. In that study, parents reported intentions to vaccinate their adolescent. Subsequently, adolescent HPV vaccination status was verified by medical records at the SBHC and its affiliated university-based clinic. For the present study, parents were invited via phone and mailings to participate in follow-up interviews to discuss the planning strategies and behaviors they employed in regards to HPV vaccination.

For the purposes of these analyses, we focused on vaccine-hesitant parents, i.e., parents unsure about vaccinating or with no intention to vaccinate. Thus, the following categories were created: Category 1 included those who reported being unsure about vaccinating at the initial interview but who later vaccinated. Category 2 included parents who reported being unsure about vaccinating and who did NOT vaccinate. Category 3 included those who reported never intending to vaccinate and who did not vaccinate. Participants were recruited between December 2013 and March 2015. The Institutional Review Board at the University of Texas Medical Branch approved all study procedures.

Measures

Parents completed face-to-face qualitative interviews about their decision-making, planning, and follow through behaviors related to vaccination. The interviewer utilized a standardized list of questions to guide each interview. These specific questions did not directly address parents' interactions with providers

for those in the unsure categories (Category 1 and Category 2). However, when parents mentioned speaking with a provider, interviewers asked about their interactions, specifically querying how the provider delivered the recommendation, how they felt that conversation went, and their response to the provider. All parents in Category 3 were asked if they had ever had a discussion of the HPV vaccine with their provider, and follow-up questions asked how they felt the interaction went as well as the provider's response to their vaccine refusal.

Analysis

Qualitative data analysis utilized framework analysis. Two researchers coded responses independently. Final codes were agreed upon and disagreements were resolved by consensus with a third researcher. Coded responses were separated into individual word processor documents by theme for analysis.

Results

A total of 28 vaccine-hesitant parents were interviewed (100% female). The mean age was 44.6 years for parents and 15.13 for referenced adolescents (56% male). The sample was racially and ethnically diverse (36% Non-Hispanic White, 31% Non-Hispanic Black, 27% Hispanic, and 5% other).

Category 1- Unsure, but subsequently vaccinated (n = 10)

Most parents in Category 1 noted that they had spoken with their provider about the HPV vaccine. The majority of these parents stated that the provider "suggested," "supported," or "highly" recommended the vaccine (three parents did not mention the topic). One parent noted that the provider communicated their recommendation across multiple visits.

About half of the parents in Category 1 described aspects of the provider's style of communication that helped them make the decision. They noted the provider listened to their concerns, quickly corrected misinformation, did not vacillate, and provided reassurance in terms of safety and efficacy of the vaccine. "She didn't vacillate back and forth [or say] it's up to you, she just said, 'Yes, I recommend it'".

A few parents described content of the conversation that provided them comfort or put them "at ease." Some of these stated that their provider discussed the benefits and safety of vaccine. For those parents who expressed concern about side effects, their providers insisted that the SBHC would assist in monitoring the adolescent for any potential side effects.

Category 2- Unsure, did not vaccinate (n = 13)

The majority of parents in Category 2 had NOT discussed HPV vaccine with a provider. Several parents stated they would expect the provider to initiate the discussion about the vaccine, and one noted that she

relies on her provider's recommendation to know which vaccines to receive, stating, *"She'll tell me if I need it."* Several of these parents noted trust in their providers, both in providing recommendations as well as imparting all important information about their healthcare. One parent specifically noted that she would prefer that the provider engage her in a balanced discussion of both the pros and cons of the vaccine.

Of the parents who had a discussion with a provider, one noted that she was supported in her desire to put off decision-making until later. Others said their provider did not question or argue when they declined the vaccine. Further, a couple noted that the provider's lack of pursuit of recommendation was *"appreciated"* because it *"respected me as a parent"*. For instance, one parent stated, *"She didn't like say, 'You need to get this. You need this shot'. She just suggested and I told her I didn't wanna give it to her at this time"*.

Category 3- No intention, did not vaccinate (n = 5)

Two parents had never discussed the vaccine with their provider. One parent mentioned that she sought out information from her provider and received very little. The remaining two had been asked by a provider about their desire to vaccinate. In these cases, their providers spoke with them about the background and/or benefits of the vaccine. Within these interactions, the provider used a persuasive strategy, either expressing their personal belief in vaccine or noting their own involvement in HPV vaccine research.

Regarding vaccine refusal, two of these parents described the provider as being *"fine"* or *"okay"* with their decision NOT to vaccinate. *"I mean, he didn't push it or anything. He just asked and told me about it. He recommended it, but I told him no"*.

Discussion

These data provide further support for the influence of provider recommendation on parents' HPV vaccine decisions [14]. Parents in Category 1 (those who had vaccinated) noted that they had had a conversation with their provider about HPV vaccine. Conversely, most in Category 2 did not mention any provider discussions. Thus, as many studies have confirmed, communication with a provider may ultimately be the key for vaccinating [15,16].

In terms of communication style, parents who ultimately initiated vaccination had providers that were quick to provide a recommendation, self-assured and firm, but also acknowledged and addressed concerns. Recommendations that are unequivocal, reassuring, and responsive to parent concerns could reduce some parents' anxiety and thereby persuade them to vaccinate. Parents who never received a recommendation, or who were supported in their refusal or delay, were the parents who had still not vaccinated.

Some vaccine hesitant parents were notably dependent on their provider to inform them of all healthcare needs, including vaccinations. This further reinforces the importance of provider recommendations. If a provider neglects to recommend the HPV vaccine, a parent might assume that the vaccine is not important.

It is notable that many vaccine hesitant parents preferred that providers did not excessively push for the vaccine and accepted their "no" without further questions. Therefore, while a very firm recommendation likely may be viewed by many parents as reassuring, others may view it less positively. A provider may need to first begin with a firm presumptive style [17], but in the face of hesitancy take a more balanced approach. This may include moving towards techniques in line with motivational interviewing. Providers may begin by providing information about the vaccine using a guiding style of communication. They then might seek to identify how responsive the parent is to change and encourage parents to discuss their own motivations to vaccinate [18]. Throughout the discussion it is vital that the provider respects the parent's autonomy to make the decision.

These results should be interpreted in light of a few limitations. First, these data are entirely dependent on parents' recall of provider communication, with an unknown amount of time between the provider visit and interview. Secondly, the initial interview did not assess for parental strength of intention towards vaccinating. It may be that those parents who ultimately initiated vaccination started with stronger intentions to vaccinate than those who did not vaccinate. Finally, this qualitative study had a relatively small number of subjects. As such, this sample may not be entirely representative of all HPV vaccine hesitant parents, particularly as the participants included no male caregivers. However, given that mothers are typically the primary decision-makers when it comes to family healthcare [19], this sample is still likely to be reflective of those who make vaccine decisions. Thus, even with this small homogeneous sample size, these findings may prove to be informative for future work aimed at improving provider communication strategies.

Further research is needed to identify how to categorize and differentiate between parents in terms of specific communication needs and approaches. Other factors that influence parent experience of provider recommendation should be explored, i.e., a provider's body language and non-verbal cues. There is a particular need to explore the most effective communication strategies and how these may be differentially applied to vaccine hesitant parents. Providers should be taught how to adapt their communication strategies to best fit the needs of all patients, in terms person-level (e.g., response style) as well as group-level (e.g., cultural) differences in approach to healthcare. Similar qualitative studies that examine parents' experiences of their own

recommendations may be particularly informative. Finally, provider communication strategies that respect a parent's autonomy in decision making while also influencing their beliefs and ultimate behaviors should be developed.

Acknowledgement

This study was supported by a grant from the National Cancer Institute (1R03CA177597-01). Its contents are the sole responsibility of the authors and do not reflect the official view of the U.S. Department of Health and Human Services.

Ethical Statement

All procedures were approved by the Institutional Review Board at the University of Texas Medical Branch and all participants provided written informed consent. All listed authors have made significant contributions to the research and writing of this manuscript and agree to be accountable for all aspects of this work.

References

1. De Vuyst H, Clifford GM, Nascimento MC, Madeleine MM, Franceschi S (2009) Prevalence and type distribution of human papillomavirus in carcinoma and intraepithelial neoplasia of the vulva, vagina and anus: A meta-analysis. *Int J Cancer* 124: 1626-1636.
2. Gillison ML (2008) Human papillomavirus-related diseases: Oropharynx cancers and potential implications for adolescent HPV vaccination. *J Adolesc Health* 43: S52-S60.
3. Parkin DM (2006) The global health burden of infection-associated cancers in the year 2002. *Int J Cancer* 118: 3030-3044.
4. Tota JE, Chevarie Davis M, Richardson LA, Devries M, Franco EL (2011) Epidemiology and burden of HPV infection and related diseases: Implications for prevention strategies. *Prev Med* 53: S12-S21.
5. Centers for Disease Control and Prevention (2011) Recommendations on the use of quadrivalent human papillomavirus vaccine in males - Advisory Committee on Immunization Practices (ACIP). *Morb Mortal Wkly Rep (MMWR)* 60: 1705-1708.
6. Reagan Steiner S, Yankey D, Jeyarajah J, Elam Evans LD, Singleton JA, et al. (2015) National, regional, State and selected local area vaccination coverage among adolescents aged 13-17 Years-United States, 2014. *MMWR Morb Mortal Wkly Rep* 64: 784-792.
7. McRee AL, Gilkey MB, Dempsey AF (2014) HPV vaccine hesitancy: Findings from a statewide survey of health care providers. *J Pediatr Health Care* 28: 541-549.
8. Perkins RB, Clark JA, Apte G, Vercruyse JL, Sumner JJ, et al. (2014) Missed opportunities for HPV vaccination in adolescent girls: A qualitative study. *Pediatrics* 134: e666-e674.
9. Rosenthal SL, Weiss TW, Zimet GD, Ma L, Good MB, et al. (2011) Predictors of HPV vaccine uptake among women aged 19-26: Importance of a physician's recommendation. *Vaccine* 29: 890-895.
10. Centers for Disease Control (2016) You are the key to HPV cancer prevention - Train the trainer. *Immunization Education & Training*.
11. Hughes CC, Jones AL, Feemster KA, Fiks AG (2011) HPV vaccine decision making in pediatric primary care: A semi-structured interview study. *BMC Pediatr* 11: 74.
12. Niccolai LM, Hansen CE, Credle M, Shapiro ED (2016) Parents recall and reflections on experiences related to HPV vaccination for their children. *Qual Health Res* 26: 842-850.
13. Rickert VI, Auslander BA, Cox DS, Rosenthal SL, Rupp RE, et al. (2015) School-based HPV immunization of young adolescents: Effects of two brief health interventions. *Hum Vaccin Immunother* 11: 315-321.
14. Gilkey MB, McRee AL (2016) Provider communication about HPV vaccination: A systematic review. *Hum Vaccin Immunother* 12: 1454-1468.
15. Dorell C, Yankey D, Kennedy A, Stokley S (2013) Factors that influence parental vaccination decisions for adolescents, 13 to 17 years old: National Immunization Survey-Teen, 2010. *Clin Pediatr (Phila)* 52: 162-170.
16. Reiter PL, McRee AL, Pepper JK, Gilkey MB, Galbraith KV, et al. (2013) Longitudinal predictors of human papillomavirus vaccination among a national sample of adolescent males. *Am J Public Health* 103: 1419-1427.
17. Opel DJ, Heritage J, Taylor JA, Mangione Smith R, Salas HS, et al. (2013) The architecture of provider-parent vaccine discussions at health supervision visits. *Pediatrics* 132: 1037-1046.
18. Leask J, Kinnersley P, Jackson C, Cheater F, Bedford H, et al. (2012) Communicating with parents about vaccination: A framework for health professionals. *BMC Pediatr* 12: 154.
19. Ranji U, Salganicoff A (2014) *Balancing on Shaky Ground: Women, Work and Family Health*. Kaiser Family Foundation Publication.