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Hispanic mothers' accounts of vaccinating their adolescent children against HPV: features of the clinic visit

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Abstract

Objective: Despite the widespread availability of the human papillomavirus (HPV) vaccine in the US, rates of vaccination among Hispanic adolescents lag behind those of other recommended vaccines. Understanding what happens during the HPV vaccination visit should provide important insight into communication between health care providers and Hispanic mothers and identifies areas where communication can be improved. As such, this qualitative study explored Hispanic mothers' experiences during their adolescent child's HPV vaccination visit.

Design: Fifty-one participants completed individual interviews. Transcripts were analyzed using a conventional content analysis approach to identify emergent categories or themes.

Results: We identified three features of the HPV vaccination visit including: the primary reason for the visit, the type of counseling the mother received about the vaccine and the type of HPV vaccine recommendation received. Most mothers reported that their child was vaccinated against HPV at a routine well-child visit. Some mothers reported that they received in-depth counseling about the vaccine, while others received brief or no counseling from the provider. Mothers also reported receiving either a strong recommendation to vaccinate, a recommendation to vaccinate that emphasized her choice, or no recommendation to vaccinate.

Conclusion: Most Hispanic mothers report that they received counseling and a recommendation from their adolescent child's health care provider before vaccinating. However, most of the mothers first heard about the HPV vaccine at the vaccination visit. Mothers who had previously heard about the vaccine outside of the clinic, reported making an appointment specifically for their child to be vaccinated against HPV. Together, these findings indicate a need to raise awareness of the vaccine and to promote HPV vaccination more strongly in this population. Education efforts

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should target mothers in community settings, in addition to clinic settings in order to increase awareness and vaccination in this population.

Keywords

HPV; vaccine; Hispanic mothers; clinic; adolescent

Introduction

It is estimated that 14 million sexually active individuals are infected with human papillomavirus (HPV) annually, making it the most common sexually transmitted infection in the US. (Markowitz et al. 2014). HPV strains or types are classified as either high-risk or low-risk HPV types. High-risk types can cause cancer and low risk types can cause genital warts (FDA 2014; Markowitz et al. 2014; Saraiya 2015). Low risk HPV types 6 and 11 are estimated to cause more than 90% of all cases of genital warts in females and males (Markowitz et al. 2014; FDA 2014). In females, high-risk HPV types cause cervical, vulvar, vaginal, anal and oropharyngeal cancers (Amano 2012; Forman et al. 2012). In fact, is estimated that HPV types 16, 18, 31, 33, 45, 52 and 58 cause approximately 79% of HPV-associated cancers in females (FDA 2014; Serrano et al. 2012; Saraiya 2015; Markowitz et al. 2014). In males, high-risk HPV types cause penile, anal and oropharyngeal cancer with HPV types 16, 18, 31, 33, 45, 52 and 58 responsible for approximately 67% of HPV-associated cancers (Amano 2012; Forman et al. 2012; FDA 2014; Serrano et al. 2012; Saraiya 2015; Markowitz et al. 2014). An estimated 19,200 females and 11,600 males are diagnosed with HPV-associated cancers each year in the United States (Viens et al. 2016).

The HPV vaccine was approved for use in females between the ages of 9 and 26 in 2006 (Markowitz et al. 2007) and was later approved for use in males between the same ages in 2010 (Markowitz et al. 2014). In the fall of 2016, the *Advisory Committee on Immunization Practices* (ACIP) issued new recommendations regarding the number of doses of the vaccine needed. Before fall 2016, three doses of the vaccine were recommended for everyone between the approved vaccination ages. After fall 2016, only two doses of the HPV vaccine are recommended for females and males who initiate the vaccine series between the ages of 9 and 14 and three doses of the vaccine for those who initiate between ages 15 and 26 (Meites, Kempe, and Markowitz 2016).

Initial research indicates that the vaccine is effective with no indication of waning protection in ten years of follow-up (Meites, Kempe, and Markowitz 2016). Despite the efficacy and potential benefits of the HPV vaccine, current vaccination rates fall short of the *Healthy People 2020* goal of 80% coverage (U.S. Department of Health and Human Services n.d.). According to the *National Immunization Survey-Teen 2014*, vaccine initiation among adolescent Hispanic females, between 13 and 17 years of age, in Texas was 55.1% with a completion rate of 39.3% (Jemal et al. 2013; Stokley et al. 2014). During the same period, vaccine initiation rates for adolescent Hispanic males of the same age were 39.3% with a completion rate of 21.1% (CDC 2014).

Given the potential that the vaccine has to reduce the incidence of HPV-caused cancers, it is important to increase current vaccination rates among both females and males. Current

trends of HPV-associated cancers indicate that the incidence of both anal cancer and oropharyngeal cancer are on the rise with the incidence of oropharyngeal cancer predicted to surpass the incidence of cervical cancer by 2020 (Chaturvedi et al. 2011; Jemal et al. 2013). It is important to increase vaccination among males because the incidence and mortality rates due to oropharyngeal cancer are higher in males than females (Howlader et al. 2016). Further, among females, the vaccine has the potential to reduce the incidence of cervical cancer by 90% if we vaccinate all 12 year old females (Taira, Neukermans, and Sanders 2013). This is particularly important for Hispanic females since they are more likely to be diagnosed with cervical cancer compared to other race/ethnicities (Howlader et al. 2016).

A National Institutes of Health funding announcement released in June of 2016 (PAR-16-338: Linking the Provider Recommendation to Adolescent HPV Vaccine Uptake) cites the need for research studies that elucidate the role of the healthcare delivery system in HPV vaccination, including provider recommendations. Further, in 2014, the *President's Cancer Panel Report* (Barbara Rimer et al. 1971) highlighted the need to reduce missed opportunities in the clinic to recommend and vaccinate eligible adolescents and young adults against HPV. Missed HPV vaccination opportunities are common (Vadaparampil et al. 2014; Wong and Mullan 2009; Kepka et al. 2015) and need to be reduced in order to increase vaccination. However, before this can be accomplished, we must better understand the nature of the HPV vaccination visit. There is limited research in this area, with most studies focusing on providers' perspectives and experiences with counseling parents about the vaccine and recommending vaccination (Bruno et al. 2014; Dempsey et al. 2016; Allison et al. 2016).

Health care providers' medical advice carries great weight among Hispanics who are likely to defer to their recommendations for themselves and their children (Roncancio, Ward, and Berenson 2011; Brown et al. 2007). In fact, research shows that having a health care provider recommend vaccination against HPV, predicts Hispanic parents' parental acceptance of the vaccine and subsequent vaccination (Reiter, Gupta, et al. 2014; Ylitalo, Lee, and Mehta 2013; Reiter, Brewer, et al. 2014). Researchers have examined providers' experiences and perspectives regarding HPV vaccination including their recommendations and the counseling they provide parents about the HPV vaccine. Two studies based on provider self-report, have found that they were less likely to strongly recommend vaccination if their patients were younger than 12 years of age and/or male (Kempe et al. 2016; Gilkey et al. 2015). However, less is known about the details of the provider recommendation and HPV counseling from the perspective of parents who agree to vaccinate their adolescent against HPV. This includes the experiences of Hispanic mothers at HPV vaccination visits. We have chosen to focus on mothers, since they are more likely than fathers to make medical decisions and attend clinic visits with their minor children (Garfield 2006; Mehta and Richards 2002; Moore and Kotelchuck 2004; Zvara, Schoppe-Sullivan, and Dush 2013; Ahmann 2006). As such, the purpose of this study is to identify and describe the main characteristics of the clinic visit, from the perspective of Hispanic mothers.

Methods

Participants

From May 2014 through January 2015, we conducted 51 interviews with Spanish-speaking Hispanic mothers of adolescent girls and boys aged 11 to 17. We recruited a convenience sample of participants from community sites including community centers, clinics and health fairs in Houston, Texas. Eligibility criteria included identifying as Hispanic or Latino, speaking Spanish as a primary language and having a child between 11 and 17 years of age who had initiated the HPV vaccine series. Our sample consisted of 32 mothers of adolescent girls and 19 mothers of adolescent boys who had received at least one dose of the HPV vaccine.

Procedure

We conducted semi-structured interviews because they allowed us to better understand Hispanic mothers' experiences in vaccinating their adolescent children against HPV. In-depth interviews were also chosen because we were collecting information about personal history, perspectives and experiences (Mack et al. 2005). All of the procedures we describe were approved by the Institutional Review Board at the University of Texas Health Science Center-Houston (protocol number: HSC-SPH-13-0594). Women were approached in Spanish and given a brief oral description of the study. We explained the purpose of the study, eligibility criteria, length of the interview and incentive amount. Eligibility criteria included identifying as Hispanic or Latino, speaking Spanish as a primary language and having a child between 11 and 17 years of age who had initiated the HPV vaccine series. Those who met eligibility criteria and were interested in participating, were consented. During the informed consent process we advised participants that they could stop the interview and withdraw from the study at any time. Participants first completed a brief demographic survey. Then, the interview was conducted and audio-recorded by a female member of the research staff. Participants received a $20 gift card as compensation.

Interview instrument and data analysis

The interview guide consisted of open-ended questions. This included understanding the doctor's visit during which the adolescent received the HPV vaccine, which is the focus of the current study. To this end we asked mothers to describe the clinic visit during which their adolescent child received the first dose of the HPV vaccine.

The recorded interviews were transcribed verbatim by a native Spanish speaker. Given that existing research in this area is limited, we employed conventional content analysis. We employed the Framework Method (Gale et al. 2013) to analyze these data. This type of content analysis represents an inductive approach to qualitative research in that it allows the categories to emerge from the data as opposed to beginning analyses with list of categories (Hsieh 2005). Before initiating the coding process, the primary author read all of the transcripts several times to obtain a sense of the data as a whole. Then, she read the transcripts line-by-line, highlighting and making notes of words that captured key themes concepts mentioned by participants. Through this process of open coding, a list of categories or code labels for each key theme emerged. Codes were created by assigning concepts to key

words or phrases regarding a particular belief. Similar key words and phrases were then grouped and named with a particular code. As prescribed by the Framework Method (Gale et al. 2013), the primary author then developed a spreadsheet with matrices for each interview question in which participant's responses/quotes were entered into the rows and the codes were entered in adjacent columns at the top. Each coder received a copy of the spreadsheet and was instructed to read each response and mark the cells under each code as appropriate. The interview transcripts were then independently coded and all coding discrepancies were examined, discussed and resolved.

In order to maintain qualitative rigor, we were guided by the model of trustworthiness (Lincoln and Guba 1985). To establish credibility, we employed a peer examination strategy (Holloway 1997). Co-authors (CCC, VGM & FLC) carefully reviewed and discussed the coding process with the primary author (AMR). We established dependability by carefully describing the research methods to ensure that our study is auditable (Lincoln and Guba 1985). Finally, we employed triangulation (Carter et al. 2014) to establish confirmability. More specifically, we employed method, investigator, and data source triangulation.

Results

Demographic characteristics

We found that 61% of study participants were 40 years old or older (mean = 42.1; *SD* = 6.0). More than half of the women interviewed were married (68.6%) and had not completed high school (78.4%). Almost all participants were foreign-born (98%) with 60.8% born in Mexico. Regarding health insurance coverage as reported by mothers, 90.2% of their adolescent children had health insurance coverage with 84.4% being covered by government-subsidized health insurance (Table 1).

Three main themes or characteristics of the vaccination visit emerged during the coding process. The first, was the original purpose of the visit. The second, was the type of counseling the mother received about the vaccine from the health care provider. The third, was the type of HPV vaccine recommendation received from the provider. The following results will discuss the three main themes in detail.

Original purpose of the clinic visit

Based on the mothers' responses, we identified three different primary reasons for the visit during which the adolescent received the first HPV vaccine dose. The primary reasons for the visit included: the annual well-child visit or physical; a visit specifically for the child to receive the HPV vaccine; and a sick visit. Most of the mothers who mentioned the purpose of the visit, stated that their child received the first dose of the vaccine at their annual well-child visit or physical. *P09:* 'We went to his general check-up and it was there that they told me about [the HPV vaccine]. They said that they were going to give him the vaccine. And I told them, "Yes".' Another mother (*P28*) stated,

> It was time for his physical exam and it was then that they spoke to me about how he was due [for the HPV vaccine] and how they could give him the HPV vaccine.

> They explained [why he needed the vaccine], it was a very good visit. It was there that they began to tell me about the vaccine and I said, 'Let's give it to him now.'

Further, mothers' responses indicated that most possessed limited knowledge about the vaccine before this visit. In fact, most of these mothers indicated that they first heard about the HPV vaccine during the visit.

> *P45*: The first time [he was vaccinated], I did not know anything [about the vaccine]. The nurse told me that he needed [the vaccine]. She said that if I wanted, she would give it to him. But she said that vaccinating was recommended. Then, I asked her more about [the vaccine]. She said that he would need to come back two more times [for the next doses]. She also said that it was recommended [to keep him healthy] in the future. She said that in the past we did not vaccinate [boys]. Well, then I told her that it was fine [to give him the vaccine]. And that is how I [gave him] the first dose.

> *P91*: [My daughter] was due for some vaccines so that she could return to school [for the new school year]. That was when the nurse commented that I had the option of giving her the [HPV] vaccine. And I told her that if [the vaccine] was for beneficial [my daughter's] health, then she should go ahead give it to her.

Other mothers indicated that their child received the first dose of the vaccine at a visit specifically for that purpose. Their responses indicated that they had previously heard about the vaccine and decided to make an appointment so that their child could be vaccinated. However, we observed that only mothers of adolescent girls reported that their child received the first dose of the vaccine at an appointment made specifically for that purpose. *P88*:

> Well, I told them [at the clinic] that I was there to give my daughter the vaccine. Because it was time [for her to be vaccinated], but they gave her five [vaccines in total]. So that day she received four vaccines and the HPV vaccine.

Another mother (*P80*) said,

> As soon as I arrived in the country, the first thing I did when I took [my daughter] to the doctor was to ask for that [HPV] vaccine. [The doctor] gave me guidance [about the vaccination process] and the first thing we did was to have her start the vaccine series.

Mothers who were aware of the vaccine and whose child received the first vaccine dose at a visit specifically for that purpose, were more likely to give their child additional doses of the vaccine. This suggests that mothers who are aware of the HPV vaccine and take their children to the clinic specifically to be vaccinated may be more likely to have their child complete the series than mothers who vaccinated at an annual well-child visit or physical. Finally, only one mother mentioned that her child had received the first dose of the HPV vaccine at a sick visit. *P90*: 'My daughter was sick with the flu and they recommended the vaccine. They said that the vaccine was good, that it would prevent the human papillomavirus and cancer.'

Counseling about the HPV vaccine

Mothers described three different types of counseling they received about the vaccine at the visit where their child received the first dose (i.e. in-depth, brief or no counseling). The majority of mothers received either in-depth or brief counseling with only three mentioning that they had not received any counseling about the vaccine. There was an even split between mothers who received in-depth or brief counseling. We did not observe any differences in willingness to vaccinate based on the type of counseling received. However, we did notice that mothers who received brief counseling or no counseling lacked knowledge about the vaccine and had more questions about it compared to mothers who received in-depth counseling.

Mothers who received in-depth counseling reported that they received detailed information about the vaccine. The counseling most often included information about the benefits and potential side effects of the vaccine.

> *P81*: I took [my daughter] to her annual checkup and I asked the doctor [about the vaccine]. I asked the doctor about the risks of the vaccine because I thought the vaccine was bad. The doctor explained that there were no risks, that maybe my daughter would have some swelling in the area where the injection was given, but that was it. In other words, she told me that the vaccine did not have side effects like I thought it did.

> *P19*: First, I asked the doctor what were the risks and what were the benefits for him. He gave my son the first dose only after he had explained these things to me.

Another mother who received in-depth counseling about the vaccine reported that in addition to verbal vaccine information, she also received written information. *P82*:

> I took my daughter to have her general check-up and that was when the pediatrician told me about this type of vaccine and gave me the vaccine information. She gave me verbal information and also written information in the form of a pamphlet.

Other mothers received brief counseling about the vaccine. Most of these mother reported only being told about the dosing schedule and/or number of doses. *P05*: ‘All the doctor told me was that my daughter needed three doses of the vaccine. Three doses, with one every two to three months. That was all he said.’ Another mother (*P72*) said, ‘Yes, they told me that my son needed the vaccine, but the truth is that they did not explain to me what that vaccine is for. All the doctor said was that he needed it and that it was recommended.’

Only three mothers reported that they had not received any counseling about the HPV vaccine.

> *P85*: No, I do not remember. It’s just that I do not know anything about that vaccine or my daughter being vaccinated, that is why I told you at first that she had not been [vaccinated]. If my daughter has been given all three doses of the [HPV] vaccine it is because I always take her vaccination card to the clinic. And they tell me which vaccines she needs and they give them to her.

Two of the three who did not report receiving and counseling about the vaccine were mothers of boys. *P72*: 'Yes, they told me that [my son] needed more vaccines, but the truth is that they did not explain what that vaccine is for. All the doctor told me was that he needed that vaccine.'

HPV vaccination recommendation

Mothers reported receiving three different types of recommendations to vaccinate their adolescent against HPV. Some mothers received a strong recommendation to vaccinate their child. This type of recommendation was one in which the health care provider emphasized the necessity of the vaccine. *P63*: 'When we came to [my daughter's] check-up, they told us that we had to give her the [HPV] vaccine. They also told us that there were certain dates that she needed to receive the vaccine [doses].'

A second group of mothers also received a recommendation from the health care provider to vaccinate their child, but provider emphasized the mother's choice. These mothers were told by the provider that their adolescent child should be vaccinated. However, they left the decision of whether or not to vaccinate, up to the mothers.

> *P61*: I first heard about the vaccine at my son's school. They told me what was the vaccine was for and the number [of vaccine doses]. They gave me specific information. Then when I took him to the doctor, at the clinic, they also told me what the vaccine was for. They said if I wanted to vaccinate him, they would but if I did not want to, they wouldn't. But I agreed that he should be vaccinated.

The third group of mothers did not report receiving a recommendation to vaccinate their child. This group of mothers can be subdivided into two groups. The first subgroup includes mothers who initiated vaccination and therefore, did not report receiving a recommendation from the provider.

> *P59*: It was a routine visit, nothing out of the ordinary. I asked them if [my daughter] needed any vaccines. They told me, 'No, she does not need any vaccines at this time.' So then I said, 'Can't you give her the papilloma vaccine?' They said, 'Yes, we will give it to her.' And that is show she got the first dose. I had already spoken to my daughter about her being vaccinated. I had already told her that I was going to give it to her. My daughter told me, 'that's fine, mom. Whatever you say.' She never tells me 'no'.

Further, some of the mothers' responses indicate that they view vaccinating against HPV in the same manner that they view all other vaccines. That is, they are in favor of vaccination and actively seek to ensure that they child is up-to-date with all recommended vaccines. As such, they did not need a recommendation in order to have their child vaccinated against HPV. *P49*: 'I always ask the doctor, how many vaccines does [my daughter] need. Every time I take my children to have their physical examinations, I take their vaccine card and I ask the doctor.'

The second subgroup included mothers who reported that their child was vaccinated against HPV without a specific recommendation. This small group (two mothers) reported that they

were unaware that their child had received the HPV vaccine and only realized this fact at a later time. *P18*:

> Oh, well the first dose, they did not tell me about. It was only with the second dose that I realized that he had been given the first dose, because they told me that he would be receiving the second dose [of the HPV vaccine] that day.

We observed one main difference between the mothers of adolescent girls and boys in the type of recommendation they received. Namely, more mothers of adolescent girls did not need a provider's recommendation to vaccinate their child because they had already decided to vaccinate.

Discussion

This qualitative study explored Hispanic mothers' descriptions of their adolescent child receiving the HPV vaccine. Their descriptions revealed three main features of the vaccination visit: the original purpose of the clinic visit, the type of counseling the mother received about the HPV vaccine from the health care provider, and the type of HPV vaccine recommendation received from the provider. To our knowledge, this is the first study to employ qualitative research methods to detail the features of the HPV vaccination visit from the perspective of Spanish-speaking Hispanic mothers. Findings from this study are of public health significance because they may inform interventions that aim to increase HPV vaccination among Hispanic adolescents, and in turn, prevent HPV-associated cancers in this population.

Most adolescent children received the first dose of the vaccine at their annual well-child or physical examination visit. Only one mother reported that her adolescent child had been vaccinated at a sick visit. This is consistent with existing research that indicates that children are less likely to be vaccinated when they are sick (Askelson et al. 2016; Neubrand et al. 2009). Unless there is a contraindication to vaccination due to the child's illness, this represents a missed opportunity to vaccinate against HPV. Existing research suggests that missed opportunities are due, in part, to clinic's limited reminder capabilities (Getrich et al. 2014). Therefore, educating mothers (outside of the clinic) about contraindications and coaching them to request the vaccine, if it is not offered, may ease the burden on clinics to provide reminders and thereby reduce missed opportunities.

We found that mothers who were aware of the vaccine and believed that it was beneficial, were likely to make a vaccination appointment. In their interviews with health care providers, Getrich and colleagues (Getrich et al. 2014) discovered that clinics encounter barriers to ensuring that adolescents receive more than the first dose of the HPV vaccine. These barriers include difficulty tracking the number of doses of the vaccine the adolescent has received, limited vaccine reminder capabilities and relatively few clinic visits. Taken together, these findings emphasize the importance of targeting both health care providers and mothers in order to increase HPV vaccination rates in this population. Further, since mothers may initiate vaccination if they are aware of the vaccine, community settings provide alternate places for educational and outreach efforts. This is supported by existing research on potential information channels to raise awareness of the vaccine, outside of

clinic settings (Mueller et al. 2012; Roncancio et al. 2017) along with the importance of perceived community support for the vaccine (Javanbakht et al. 2012).

Only mothers of adolescent girls reported visiting the clinic specifically to vaccinate their child against HPV. Existing research suggests that this may be due to both, lower awareness of the vaccine's availability for adolescent males as compared to adolescent females and/or the belief that adolescent boys are not at risk of contracting HPV (Das et al. 2010; Wilson et al. 2014; Berenson and Rahman 2012). Given this, interventions and health care providers should work to increase awareness of the HPV vaccine along with the fact that adolescent males are also at risk of contracting HPV. This is particularly important given that awareness is associated with both a higher intention to vaccinate and vaccination (Gilkey et al. 2012; Luque, Raychowdhury, and Weaver 2012).

Overwhelmingly, mothers reported that they received some type of counseling about the HPV vaccine from the health care provider. Half of mothers reported that their child's health care provider discussed the vaccine with them and that they received detailed information about the vaccine including the benefits and risks of vaccination. The other half received less information, primarily focused on the existence of the HPV vaccine and that the number of doses in the series. Only a relatively small proportion of our participants mentioned that they did not receive any information or counseling about the vaccine. This suggests that providers are discussing the vaccine with Spanish-speaking Hispanic mothers. Some researchers and medical professionals suggest that it is better to 'bundle' or mention the HPV vaccine along with other childhood vaccines because highlighting the vaccine may inadvertently suggest to mothers that they should be concerned about the HPV vaccine (Barbara Rimer et al. 1971; Brewer and Fazekas 2007; Bailey et al. 2016; Perkins and Clark 2013). Despite this recommendation, our findings suggest that most providers are discussing the vaccine with Spanish-speaking Hispanic mothers. Future research should investigate how this population feels about bundling and whether in-depth counseling or bundling leads to a greater likelihood to vaccinate.

Only a small group of mothers reported that they had not received a recommendation to vaccinate, rather their child had been vaccinated without their knowledge. These mothers did not realize that their child had received the first dose of the HPV vaccine until they were told at a subsequent visit that their child was due for another dose of the vaccine. More mothers of adolescent boys, compared to mothers of adolescent girls, reported that their child had been vaccinated against HPV without their knowledge or any type of recommendation from the provider. This is consistent with existing research on providers that has found that they less likely to strongly recommend vaccination for adolescent boys compared to adolescent girls (Allison et al. 2016). Future research should conduct interviews with providers to understand what factors influence the type of recommendations they give parents. Also, researchers should investigate the relation between type of recommendation and the number of HPV vaccine doses that adolescents receive.

Limitations

This study has several limitations that should be mentioned. We conducted this study in a large urban city in Texas, as such the results may not generalize to rural areas or other states

in the US. In addition, we only interviewed Spanish-speaking Hispanic mothers so the experiences of English-speaking Hispanic mothers may differ. Further, the majority of participants reported relatively low annual household incomes and most of the adolescent child had health insurance coverage. Therefore, our results may not be representative of higher income mothers or those mothers whose adolescent children do not have health insurance coverage.

Conclusions

We found that the majority of Hispanic mothers who have vaccinated their adolescent child against HPV, did so at the annual well-child visit immediately after hearing about the vaccine from the health care provider. However, we also found that mothers who had previously heard about the vaccine and its benefits, outside of the clinic, did make appointments to have their child vaccinated. The majority of mothers reported that the provider spoke to them about the HPV vaccine, with only a few mentioning that their child had been vaccinated without their knowledge. Findings from these interviews provide important insight into the HPV vaccination visit from the perspective of Hispanic mothers. We also identify areas for improvement such as the need to raise awareness of the vaccine among mothers of adolescent boys; the need for strong vaccinations recommendations from providers, especially for mother of adolescent boys; and the potential of educating mothers about the vaccine outside of clinic settings in order to increase HPV vaccination in this population. This knowledge can inform the development of interventions and can be used by providers to inform their discussions with Hispanic mothers regarding the HPV vaccine.

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Table 1.

Demographic characteristics of the sample ($N = 51$).

	N (%)
Mother's Age (Mean = 42.1, SD = 6.0)	
<40 years of age	24 (39.2)
≥40 years of age	28 (60.8)
Mother's Marital Status	
Single, never married	6 (11.8)
Married or living with partner	25 (49.0)
Separated or divorced	10 (19.6)
Mother's Education Level	
Less than high school completed	40 (80.0)
Completed high school	11 (20.0)
Annual Household Income	
< $0–$9,999	18 (35.3)
$10,000–$19,999	14 (27.5)
$20,000–$29,999	9 (17.6)
$30,000 $60,000	5 (9.8)
Mother's Country of Birth	
Mexico	31 (60.8)
El Salvador	8 (15.7)
Honduras	6 (11.8)
Guatemala	2 (3.9)
Nicaragua	1 (2.0)
Bolivia	1 (2.0)
Cuba	1 (2.0)
United States	1 (2.0)
Child's Age	
11–12 years of age	11 (21.6)
13–14 years of age	25 (49.0)
15–16 years of age	7 (13.7)
17 year of age	8 (15.7)
Child's Health Insurance	
None	5 (9.8)
CHIP	8 (15.7)
County subsidized (gold card)	6 (11.8)
Medicaid	29 (56.9)
Private	3 (5.9)
Child's HPV Vaccination Status	
1 Dose	12 (23.5)
2 Doses	14 (27.5)
3 Doses	25 (49.0)