Sexual Health and HPV Vaccine Conversations: Enhancing Provider Communication for Young Women

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ABSTRACT

Young women (ages 18-26) face a multitude of difficulties when choosing to disclose information regarding their sexual health to their provider. The objective of this study was to investigate the relationship between the quality of patient-provider communication and the patient's likelihood to receive the HPV vaccine with an explicit recommendation. Interviews were conducted with 11 young women (M = 21.36; SD = 2.46), with the majority identified as Seniors (n = 4; 36.4%), non-Hispanic (n = 10; 90.9%) and White (n = 9, 81.8%). Interviews were also conducted with two providers, one male and one female (M = 43.5; SD = 7.78), both who identified as non-Hispanic and White, to cross-check the data. Young women and providers were recruited from the Northeast and interviews ranged from 10-30 minutes in length. Interviews were audio recorded, transcribed, and thematically analyzed between two researchers following the Grounded Theory coding process (Klose & Seifert, 2017). The collection of qualitative data allowed for a greater understanding of young women's perspective of their providers, as well as factors that influence their willingness to share sexual health information and receive the HPV vaccine. Suggestions for improvements in communication by providers on sexual health and the HPV vaccine with young women are discussed throughout the research paper.

INTRODUCTION

During a conversation with their provider, young females (ages 18-26) face a multitude of difficulties to choose to disclose information regarding sexual health. This may include a fear of confidentiality or privacy, perception that the provider is judgmental or uncomfortable when speaking about sex, or a lack of relevant knowledge regarding information that is relevant to their needs (Fuzzell, Fedesco, Alexander, Fortenberry, & Shields, 2016). On the other hand, young women are more likely to discuss sexual health with their providers when they use an interactive communication style, show attention to youth-specific contextual influences, and demonstrate knowledge about relevant issues (Minnis, Mavedzenge, Luecke, & Dehlendorf, 2014; Wittenberg, 2009).

Meanwhile, one of the strongest predictors of acceptance of the HPV vaccine among young female patients, is receiving an explicit recommendation from their provider. Research demonstrates that young female patients (ages 18-26) are more influenced to receive the vaccine when they have a meaningful discussion about HPV and the benefits of the vaccine, and then receive a recommendation from their provider (Rosenthal, Weiss, Zimet, Ma, Good, & Vichnin, 2010; Hopfer & Clippard, 2011). However, providers are less likely to recommend the HPV vaccine to a patient that is uncomfortable speaking about sex or sexually transmitted diseases (Gilkey & McRee, 2015).

This research paper investigated the importance of patient-provider communication regarding sexual health, specifically the recommendation a provider gives to young female patients to receive the HPV vaccine. A brief look at previous research about difficulties in conversation young women face when discussing sexual health and the influence of a provider's

recommendation to receive the HPV vaccine revealed the importance of provider communication for a young woman to make an informed decision about her health.

LITERATURE REVIEW

Importance of Patient-Centered Communication

Street (2017) evaluates that successful patient-centered communication is multidimensional. Street's definition includes (1) reveal the patient's perspective, (2) explores the biopsychosocial contest of the patient's health and well-being, (3) create or reinforces trust and mutual respect, (4) explanation of disease and treatment options in a way the patient understand, (5) patient actively participates in the conversation and decision-making process, (6) creates shared understanding of the problem and course of action, and (7) produces decisions that are based on evidence, consistent with patient's values, and feasible to implement. Street's definition demonstrates that patient-centered communication is not a broad concept, rather it is a multidisciplinary process to engage the patient in their health and well-being.

For women, particularly young women, there are several health topics that are deliberated before they disclose information to their providers. The most common, based on frequency named, include sex and sexuality, sexually transmitted diseases, reproductive health, drugs, mental health, and domestic issues. Of these topics, it is found that topics of sexual history and history of sexually transmitted disease are categorized as "none-of-your-business" for women (Sankar and Jones, 2005). According to the CDC, one in four sexually active adolescent females has an STD, such as chlamydia or human papillomavirus (HPV). It is important to acknowledge that this population does not want to discuss their sexual health, but

they are at a higher risk for acquiring STDs for a combination of behavioral, biological, cultural reasons, and increased cervical ectopy ("STDS in Adolescents and Young Adults", 2017). Since this population is at a higher risk for acquiring sexually transmitted diseases, providers should be trained on how to engage their young female patients in discussions regarding their sexual health to promote informed decision making.

Determinants of Quality Provider-Communication for Young Females Regarding Sexual Health

When a young woman (age 18-26) speaks to her provider about sexual health, she is influenced by numerous factors to disclose information. Young women face several difficulties in their conversation with their provider that causes them to limit discussion on their sexual health. However, there are several strategies to improve provider-communication regarding sexual health to engage the young female patient in the discussion surrounding her sexual health. Through exploring low and high-quality determinants of provider-communication regarding sexual health, important strategies will be revealed to help providers improve sexual health communication for their young female patients.

Low-Quality Communication Regarding Sexual Health. Fuzzell, Fedesco, Alexander, Fortenberry, & Shields (2016) discovered five themes that adolescents and young adults experience when they are discussing sex with their provider: (1) need for increased quantity of sexual communication; (2) confidentiality/privacy; (3) comfort; (4) inclusivity; (5) need for increased quality of sexual communication. These five themes uncover how providers can improve the quality of communication regarding sexual health to young women. Through increasing the quality of their conversations, patients can feel more willing to disclose

information regarding their sexual history and sexuality. Consequently, providers could be able to provide their knowledge as it pertains to the patient's needs and their health.

Patients reported that physicians do not ask enough questions regarding puberty, romantic or sexual interests and attractions, or orientation. Rather, physicians ask their patients a "checklist of items" (e.g. voice changes, first menstruation, sexual activity). Physicians fail to ask specific questions that relate to their patient, such as their physical or psychological reaction to their developmental changes. Once they ask questions that are required, they fail to ask patients if they have any questions or offer sexual education. This lack of physician engagement leads patients to seek information from the Internet, which can often be untrue (Fuzzell et al., 2016). In a study conducted by Escoffery, Miner, Adame, Butler, McCormick, and Mendell (2005) found that only 11% of 743 college students found the health information they were seeking on the Internet. Providers should be working to educate their patients through offering knowledge and answering questions, rather than the patient turning to the Internet to find health information.

Next, patients are more willing to share information regarding their sex life or sexuality when their physician emphasizes confidentiality (Fuzzell et al., 2016). Confidentiality is an issue facing many adolescents and young adults in a health services setting. Their concerns about privacy strongly effect and influence their willingness to disclose information regarding their sexual health. Their fear of privacy also prohibits them from seeking health care for the fear that their parents may discover the sensitive health information shared with their provider (Samargia, Saewyc, Y Elliott, 2006). Specifically, female adolescents have a higher concern with confidentiality regarding sexual and reproductive health than males (Breuner & Mattson, 2016). Females that indicate confidentiality-related issues when speaking with their provider

about sexual health also reported a significantly decreased usage of STD services (Leichliter, Copen, & Dittus, 2017).

Moreover, patients are less willing to share information regarding their sex life if they feel the physician's discomfort, awkwardness, or judgmental attitude when discussing their sexual history (Fuzzell et al., 2016). Patients comfort level with discussing sexual history is also affected by the physical space of the exam rooms, such as if the room has information on STDs or if it's a kid-focused space (e.g. toys, painted walls for young kids) (Fuzzell et al., 2016). Young adults also fear being judged about their sexual behavior or that the provider will use scare tactics to discourage risky sexual behaviors (Shafi et al., 2014). The withholding of this judgement has a powerful effect. For instance, one male describes that when he told his female provider that he has engaged in anal sex, the provider made him feel comfortable because she did not stammer, did not change her voice pattern or inflection in her voice, and did not look away (Fuzzell et al., 2016). Additionally, women are more likely to have a positive experience with their provider if they do not make assumptions and appear non-judgmental. Consequently, if the provider makes assumptions and is judgmental, their willingness to disclose information will be negatively influenced (Politi, Clark, Armstrong, McGarry, & Sciamanna, 2009).

Further, patients also feel less willing to disclose information about their sexual history if they feel the physician's office does not promote a safe space to disclose sexual orientation or gender identity (Fuzzell et al., 2016). This is a particularly alarming issue with patients that receive heteronormative assumptions made by their providers. Providers instantly assume their patient's sexuality, rather than affirming their patient's identity. When the provider skips

over this question of asking the patient their sexual identity, the patient is uncomfortable and unwilling to engage in sexual health conversations (Jahn, Bishop, Tan, & Agénor, 2019). Finally, patients feel their providers need to be more informed and knowledgeable about sexual health. Patients identified three areas where providers can improve the quality of sexual health information. First, defining the meaning of "sexually active" to allow the patient to accurately respond to the provider's question, "Are you sexually active?". Next, patients identified that providers should articulate that the purpose of discussing sexual health is to improve the patient's health. Finally, patients stated that providers need to ask each patient her/his sexual orientation, rather than assuming sexual preference. Through improving the quality of sexual health communication, patients will feel more informed and empowered to make the right choices for their well-being.

High-Quality Communication Regarding Sexual Health. Research conducted by Minnis, Mavedzenge, Luecke, and Dehlendorf (2014) identified two key features of high-quality counseling for young women regarding contraceptive methods: (1) an interactive communication style (e.g. respectful, friendly, focused on establishing trust) and (2) attention to youth-specific contextual influences (e.g. living situation, partnership patterns, STD risk, social influences). Interactive sessions allow the patient to engage with the provider and ultimately make the best option for themselves based on contextual factors. When the provider fails to interact with the patient, the provider makes a decision that does not necessarily fit the patient's lifestyle.

Providers' interactive contraceptive counseling sessions use several strategies to guide a woman's decision. These strategies allow the provider to engage in high-quality conversations with young female patients in order to guide their contraceptive decision making.

Additionally, the contraceptive method the provider and patient decide will also be tailored to both developmental and environmental needs (Minnis et al., 2014).

First, providers can engage their young female patients in an interactive contraceptive counseling session through initiating the discussion by asking the patient about the contraceptive use experience of members of their social networks. Providers can successfully execute this strategy by invoking peer or family attitudes and experiences. For instance, the provider may ask, "Are your girlfriends or anybody on a pill that you might like to try?" Through this strategy, patients can address familiar contraceptive methods, as well as discuss myths and concerns about a method they heard about from a friend of family member (Minnis et al., 2014).

Next, providers can engage their patients in a discussion about their family and partner support systems to promote and sustain contraceptive method use. When a provider asks a patient about her support system, the patient can reveal if she has a family member or partner to support her health. During this strategy, if a patient identifies a supportive person in her life, the provider recommends engaging him/her in her contraceptive method. For instance, if a patient identifies that she has a partner, the provider may advise the patient to tell her partner that they also have a responsibility to engage in safe sex. Through identifying a person to be the patient's support system, the patient is more likely to sustain the contraceptive method six months after the visit (Minnis et al., 2014).

Finally, providers can give guidance in balancing patients' lifestyle characteristics with their contraceptive method use. Providers may choose to directly address the challenge of integrating a routine health behavior into their lives. If the patient poses this as a concern, the provider can suggest strategies to remember her contraceptive methods, such as identifying a

daily activity to align with the method use or setting a mobile phone reminder (Minnis et al., 2014).

Along with these strategies, providers must also attend effectively to contraceptive myths and misinformation, provide information about the reproductive system, and integrate relationship characteristics and partnership patterns into the guidance of contraceptive method choice. According to the American College of Obstetricians and Gynecologists (2017), regardless of the patient's age or previous sexual activity, obstetrician-gynecologists should provide appropriate and individualized counseling to the patient's developmental needs regarding contraceptive needs, expectations, and concerns. It is also suggested that the counseling process begins with explaining the most effective contraceptive methods, as well as addressing common misperceptions about contraceptive methods ("Counseling Adolescents About Contraception", 2017). Through increasing attention to these areas, providers will be able to more successfully provide comprehensive reproductive health care to young females. Furthermore, providers may also use resources found on the Center of Disease Control website for more resources on how to speak to patients, as well as hesitant parents. One resource page lists ten useful tips for providers to use to attain and maintain high HPV Vaccination Rates. Providers should acknowledge the significance and importance of providing an effective recommendation to patients and their parents to receive the HPV vaccine. Additionally, providers should work to educate their office on the importance of the HPV vaccine to ensure each team member can engage in conversation with parents and answer common questions about the HPV vaccine. Finally, providers should strive to maintain strong doctor-patient relationships to establish trust. This relationship of trust can be strengthened through the provider using a personal example, such as vaccinating her/his own

child, to show their belief in the importance of the HPV vaccination ("Top 10 Tips for HPV Vaccination Success", 2018).

Through identifying elements of low and high-quality provider-communication, providers can gain a better sense of how to engage young females in conversation regarding their sexual health. These elements will allow providers to educate and guide their patient's decision-making when it comes to sexual health. A high-quality provider conversation with young females plays a critical role in their sexual health, particularly their willingness to receive the human papillomavirus vaccine.

Acceptance of HPV Vaccine. According to the CDC, human papillomavirus (HPV) is the most common sexually transmitted (STI). Currently, 79 million Americans, most in their late teens and early 20s, are infected with HPV. Anyone who is sexually active can get HPV, even if you have had sex with only one person or the infected person has no signs or symptoms ("About HPV", n.d.). For females, HPV can result in genital warts, cervical cancer, or other cancers, including cancer of the cervix, vulva, vagina, anus, and back of the throat ("HPV Cancers", n.d.). Currently, public health efforts are focused on vaccinating young girls at ages 11-12. However, if a parent chooses not to vaccinate her child, that does not mean the patient cannot receive the vaccine at a later age. For women, the HPV vaccination is recommended through age 26. Considering a woman can receive the HPV vaccine through age 26, providers should be working to educate their young female patients on HPV and the benefits of getting vaccinated ("Vaccinating Boys and Girls", n.d.).

Young sexually active females are at a higher risk of acquiring STDs for a combination of behavioral, biological, cultural reasons, and increased cervical ectopy ("STDS in Adolescents and Young Adults", n.d.). In fact, the highest risk timeframe for HPV acquisition includes the

college years, during ages 17 to 26 (Dunne et al., 2007). In a National Health and Nutrition Examination Survey, 2003-2006, the prevalence of HPV 6, 11, 16, or 18 infection was highest (18.5%) among women aged 20-24 years (Dunne et al., 2011). Thus, educating young female patients on the prevalence of HPV and the benefits of the vaccine could drastically decrease the percentage of women with HPV 6, 11, 16, or 18 (Dunne et al., 2011).

The strongest predictor for a female receiving the HPV vaccine is physician discussion and recommendation. In a research study of females (mean age 21.6 for respondents), 98% of women that had been vaccinated had both discussed the vaccine with their doctor and received a recommendation for vaccination. Meanwhile, 69.9% of those who had not been vaccinated had either not discussed the vaccine with their doctor or discussed it but did not receive a recommendation (Rosenthal, Weiss, Zimet, Ma, Good, & Vichnin, 2010). This study also discovered that student status is a predictor of high acceptance for the HPV vaccine (Rosenthal et al., 2010; Boehner, Howe, Bernstein, & Rosenthal, 2003; Jones & Cook, 2008). These conclusions are supported also by a research study that conducted qualitative research with college females (women, age 18 to 26, responded “Yes” to having heard of the HPV vaccine). Hopfer and Clippard (2011) found that among the responses of those college females who had not been vaccinated, a majority (73%) were accepting of the HPV vaccination by signifying vaccination intent, having already been vaccinated, explicit statement that vaccination made sense and was worthwhile, and/or acknowledge that if a health care provider recommended vacation the participant would likely vaccinate.

One predictor of acceptance of HPV vaccine is explicit health care provider messages. The messages of health care providers are particularly influential because college females view the provider as trustworthy and knowledgeable about HPV. Even if the provider has not yet

offered a recommendation, females responded by noting, "When my doctor recommends it, then I'll get vaccinated" (Hopfer & Clippard, 2011). Providers need to have a thoughtful conversation with their female patients to ensure there is informed consent around the HPV vaccination by explaining what HPV is and the benefits of the vaccination. This research study demonstrates the power a provider's opinion and recommendation has on influencing their college female patients to make an informed decision about protecting themselves against HPV (Hopfer & Clippard, 2011; Rosenthal et al., 2010). The messages providers give to their young female patients plays a critically important role towards the females accepting the HPV vaccination.

For providers to successfully recommend the HPV vaccine to young females they must emphasize the importance of the HPV vaccine, particularly cancer prevention. If a provider emphasizes the prevalence of HPV, female patients are more likely to indicate an intention to get the HPV vaccine right away (Yang & Pitman, 2017). Additionally, providers should address vaccine safety concerns with their female patients. Nan (2012) discovered young female patients are much more concerned about vaccine safety than male patients. Along with addressing safety concerns, providers should be prepared to address the cost with their young female patients. Framing strategies surrounding cost are a strong influencer of a young adults' intention to get vaccinated. It is proven that when the vaccine protects against cervical cancer with little to no cost to the patient, there is a greater intention to get vaccinated as compared to the vaccine offered at the regular retail price of $375 (Nan, 2012). Another useful tool for providers is recommending same-day vaccination (Gilkey & McRee, 2015). Finally, providers should recommend the HPV vaccine at the same time and in the same way as other adolescent vaccines. Providers are more successful at recommending the HPV vaccine when they focus

on the "routine" immunization schedule versus what is required for school entry (Gilkey & McRee, 2015).

On the other hand, studies have shown that providers are less likely to recommend the HPV vaccine to patients that are uncomfortable speaking about sex or sexually transmitted diseases or perceptions of parental hesitancy (Gilkey & McRee, 2015). Additionally, parents of younger adolescents, males, adolescents from racial and ethnic minorities, and lower-income women often received less recommendations from their provider (Gilkey & McRee, 2015; Kahn, Rosenthal, Jin, Huang, Namakydoust, & Zimet, 2008). In this case, providers should be recommending the HPV vaccine to all patients, not just those that are perceived as "at risk" (Gilkey & McRee, 2015).

RESEARCH QUESTIONS

Previous research demonstrates that a young female's willingness to receive the HPV vaccine increases if the provider emphasizes the prevalence of HPV and the benefits of the vaccine (Hopfer & Clippard, 2011; Rosenthal et al., 2010). However, for this recommendation to be successful, the patient must be engaged in the conversation with her/his provider regarding sexual health (Gilkey & McRee, 2015). After conducting research on the difficulties young females face in conversations with their providers regarding sexual health, as well as the importance of a provider's recommendation to receive the HPV vaccine, the following research questions are proposed:

RQ1: How do young females (ages 18-26) perceive their patient-provider communication regarding their sexual health?

RQ2: How do young women perceive their patient-provider communication regarding the HPV vaccine?

RQ3: How do providers perceive their conversations with young women on sexual health and the HPV vaccine?

METHODOLOGY

Participants

This study conducted interviews with young women about their conversations with physicians about sexual health and the HPV vaccine. Also included were interviews with two physicians that have young women ages 18-26 in their practice and/or population served. Interviews of 11 women enrolled in undergraduate and graduate programs at a northeast university were conducted from October 7 to November 6, 2019. The mean age of student participants was 21.36 (*SD* = 2.46). A majority of the students were seniors (*n* = 4*; 36.4%)*, followed by graduate students (*n* = 3; 27.3%) and Sophomores and Juniors (respectively, *n* = 2, 18.2%). Ten (90.9%) of the women identified their ethnicity as not of Hispanic, Latino or Mexican origin, with one stating Hispanic-Chilean. The majority of women self-identified as White (*n* = 9; 81.8%), with one woman identifying as Other Asian, but did not specify (*n* = 1, 9.1%) and one identifying as Vietnamese (*n* = 1; 9.1%) (See Appendix A for demographic information). The physicians interviewed were one male and one female. The range of age of the physicians was 38 to 49 (*M* = 43.5, *SD* = 7.78). One physician indicated a Master of Science, while the other did not specify. Both indicated their ethnicity as not of Hispanic, Latino or Mexican origin and their race as White (See Appendix B for demographic information).

Recruitment

College women from undergraduate and graduate Communication courses and word-of-mouth were recruited from a university in the northeast. An email was sent by faculty asking young women for their availability during a 30-minute time period to speak with the lead researcher about their conversations on sexual health with their doctors. Depending on the Communication course, students were offered extra credit with professor approval.

Two physicians were also interviewed to understand the medical perspective on communicating sexual health and the HPV vaccine to young women. The physicians were chosen based on their experience working with young women. The first physician serves young women patients as a personal physician at a private care office. While, the second physician sees female patients at an urgent care clinic. After reaching out via email to the two physicians, a 30-minute in-depth interview was scheduled and took place in their offices. All procedures received prior approval from the university Institutional Review Board.

Interview Procedures

The young women interviews were conducted in reserved classroom and conference spaces at a mutually convenient time on the university campus. The physician interviews were conducted in their private, clinical offices. Both locations ensured confidentiality and privacy by being rooms that were reserved in advanced and were locked during the duration of the interview. The rooms were also in a location with low foot traffic. All interviews were audio-recorded on a data encrypted digital recorder to ensure confidentiality of personal health information. Prior to the interview, participants completed a demographic questionnaire, which included their age, level of education, ethnicity, race, and gender.

The interview compromised of a prepared set of open-ended questions. The first half of the interview consisted of participants' recalling conversations and their perceptions of their provider's communication style. Sexual health conversations were designed with a focus on identifying the participant's perception on her provider, including comfortability, communication style, honesty, confidentiality, and conversations on contraceptive methods. Following conversations on sexual health, participants were asked to share whether they have received the HPV vaccine. If participants were vaccinated, they were asked about their decision, conversation with their provider, if they talked to a parent, close relative, friend or consult the internet before deciding, and if they received a recommendation from their provider. If participants were not vaccinated, they were asked what they would want their provider to say during the conversation, if they wanted a pamphlet on the vaccine, if they would talk to a friend, close relative, friend, or consult the internet before deciding, and if they would receive the vaccine if their provider recommended it.

The in-depth interview with physicians were designed to capture the medical perspective on discussing sexual health with young women, as well as the HPV vaccine. These interviews served as data triangulation in order to compare sources from different participant groups. (Fisher, 2019a). The male physician has had experience treating female patients (ages 18-26) for five years, but has been a physician for women for the last twenty-five years. The female physician has been treating female patients (ages 18-26) for the last seven years. Both physicians were asked to share their experience with speaking about sexual health with young women, including how they begin their conversations, difficulties that arise, and any techniques or styles that they may use. Both physicians were also asked to share if they advised all their female patients (ages 18-26) to receive the HPV vaccine, medical points they

emphasize during those conversations, primary concerns voiced by patients, and any issues that emerge as barriers (e.g., cost, fear of parental disclosure). (See Appendix C for interview questions).

Analytic Procedures

Data preparation. Following all the interviews, the recording was transferred to a password protected computer and deleted from the audio recording device. The transcriptions were stored on a password protected computer. The in-depth interviews were transcribed verbatim by the principal investigator (the first author). Numbers were used as participant identifiers in order to ensure confidentiality. No personally identifying information was included. In cases where participants named physicians, only the first name or last name (never both) were included to ensure anonymity. During the transcribing process, the primary interviewer repeatedly reviewed the audio-recordings (about four times), while transcribing each interview and read the written transcripts (about three times), to prepare the interview for analysis.

Coding and constant comparison. A thematic analysis was followed to analyze the transcripts. With the thematic analysis, the researchers were able to identify and analyze data with various aspects of the research objective, specifically with the three research questions (Braun and Clarke, 2006, as cited in Fisher, 2019b). Thematic analysis also provided a flexible tool for detecting rich and detailed data. Both authors conducted the data analysis, with the second author – a professor – lending her perspective to interpret the data and identify meaningful emerging themes. The second author strengthened the validity of the findings by ensuring that data interpretation represented the young women's perspectives and answered our research questions. The coding process followed Glaser and Strauss' Grounded

Theory (1967), which allowed for objective and analytic data coding (Klose & Seifert, 2017). The three phases of coding allowed for objective and analytic data coding.

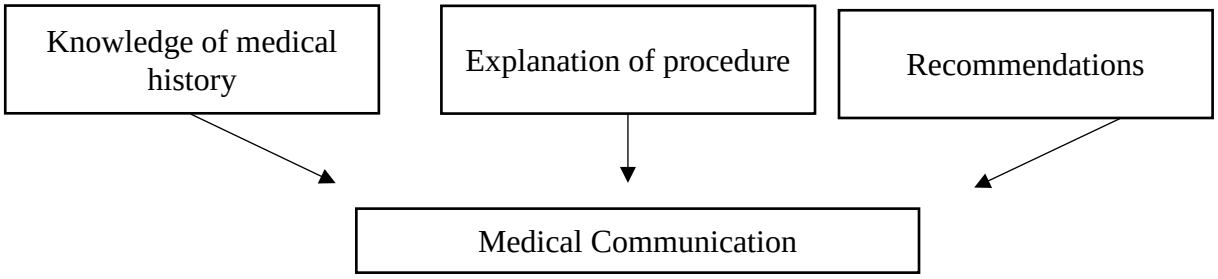
The coding process began with open coding. During this process, the two researchers independently analyzed the transcripts to assign codes to fragments of data. Once the researchers independently coded, they then met together to compare their assigned codes. While looking at their separate assigned codes, they continuously referenced the transcripts to ensure accuracy and frequency. This process was done three separate times with each research question in mind. The following is an example of the open coding process:

> "Yeah, I would say she's pretty young, in her 30s, so she's easy to talk to. I first started going to see her my freshman year of college to get put on birth control, so she was really good about that. She's just always willing to ask me questions and talk to me because she's easier to relate to I guess because she's young and she's a woman."

In this example, the two researchers identified each of the highlighted sections as representing a separate code. Once agreement was reached on coding definitions, the two researchers began the axial coding. The researchers independently grouped the codes into categories or themes (see Figure 1). After creating the overarching theme, sub-categories were created to further explain the code. This process was done three separate times for each research question. The themes were derived inductively, or bottom-up. In this case, the themes were strongly linked to the data because they were data-driven and were not being placed into a pre-existing coding frame (Fisher, 2019b) Along with data-driven themes, the researchers ensured accuracy of the themes by referencing the transcripts throughout this phase.

Figure 1

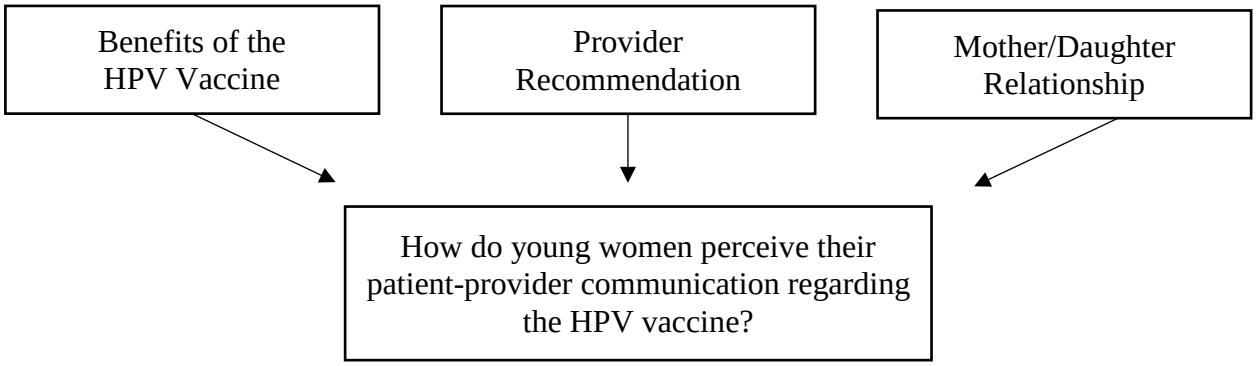
Example of Axial Coding



The last phase of the coding process, selective coding, involved focusing on the most important categories the objective of this research study (see figure 2). This process was conducted for each research question. This stage of the coding process allowed the researchers to ensure the codes and themes were relevant to answer the three research questions. By continually assessing the data, codes, and themes, the researchers reached theoretical saturation.

Figure 2

Example of Selective Coding



Ultimately, this research process allowed the researchers to have detailed and vivid results specifically for the research study and its objectives.

Rigor

Throughout the coding process, the researchers used several verification techniques to ensure and establish rigor. Rigor criterion includes: (1) confirmability/auditability, (2) credibility, (3) fittingness/transferability, (4) utility, (5) verisimilitude. Confirmability or auditability includes documentation of the researcher's thinking and decisions. This was maintained through several pre-data preparation documents. Next, credibility was achieved through data triangulation by interviewing various insider groups to answer the research objective. For this research study, in-depth interviews were conducted with young women and physicians to compare their perspectives and insights for improving conversations. Additionally, credibility was achieved through member checking by sending the data analysis to participants. Next, fittingness or transferability refers to the possibility that the study's findings would be applicable to another research study. For this research study, the data could be used in outside contexts because of its accurate and rich descriptions of research findings. Further, this research study achieved utility through thick descriptions because the findings produced knowledge that contributed to the problem-solving capacities of young woman patients and their physicians. Finally, verisimilitude refers to writing that seems "real" and "alive" through transporting the reader directly into the world of the study. Verisimilitude was also achieved through member checking (Loh, 2013; Morse et al., 2002; Scharalda & Jack, 2010; Strauss & Corbin, 2015, as cited in Fisher, 2019a).

RESULTS

The collection of qualitative data provided a unique opportunity to hear from young women about their experiences in discoing sexual with their providers, and conversations, if any, about the HPV vaccine. Through the interviews, the following objectives were achieved: (1)

identify strategies to improve patient-provider communication regarding sexual health, (2) identify strategies to improve patient-provider communication regarding HPV vaccine, and (3) explore provider's perception and insights on conversations regarding sexual health and the HPV vaccine. The interviews with young women demonstrated high- and low-quality strategies that they have experienced with their personal physicians. In addition, interviews with physicians reflected similar themes to young women, but demonstrated a difference in communication. The themes for each research question will contribute to overall recommendations to enhance provider communication regarding sexual health and the HPV vaccine for young women.

RQ1: Sexual Health Conversations

Several themes emerged surrounding sexual health conversations: (1) high-quality communications styles, (2) low-quality communication styles, (3) partnership in decision making with physician, (4) low-quality partnership with physician, (5) physician's medical communication, (6) confidentiality between physician and patient, (7) low confidentiality, and (8) awareness of technology. With following these themes, providers will be able to implement high-quality communication strategies into their conversation, thus creating a trusting and welcoming environment for young women to share honest information about their sexual health (See Appendix D for an overview of themes for RQ1).

Theme 1: Need for High-Quality Communication Style

Personality of Provider. The personality of the provider is integral for young women to share sexual health information. Most of the young women expressed examples of their provider's personality, including (a) providing information and factual knowledge, (b) efficiency, (c) humor, (d) constant communication, and (e) a concerned tone of voice. It is

important for providers to recognize that their personality, specifically these factors, contribute to a young woman's likelihood to disclose honest information about their sexual health.

Many participants expressed that the personality of their provider played an important role to establish comfort through the usage of humor. The humor, when used in appropriate contexts, allowed a young woman to feel more comfortable and open to share private medical information or concerns:

> *"He also kind of uses humor, which I was kind of like takes down any sort of tension and so it's a relax setting with him."*

Several young women also added that providers with a concerned tone of voice allowed them to feel more open to share private information:

> *"Just by like her tone of voice, like she's like very concerned, especially cause like she knows my family history. She's very sincere when she's asking about my life and stuff like that just because she knows everything that I've been through."*

Relatability. Relatability of the provider is defined by several subcategories, including (a) welcoming, (b) personal experience, (c) hugs, and (d) mom or friend-like tone. These subcategories demonstrate that the relatability consists of the provider creating a quality connection or relationship with the young woman. This relationship can be facilitated if the providers communicates and creates an environment where the young woman can feel open to disclose private information. One component of creating a welcoming environment could be relating the young woman's nervousness to other female patients:

> *"The first time I met her I was really nervous and she just was like very welcoming and she was like everyone goes through it."*

The relationship between a provider and a young woman can also be enhanced when the provider shares their personal experience. A majority of participants indicated that their providers were female and shared similar experiences with them to help with contraceptive methods, treatment plans, or procedures:

> *"She's like younger, in her late 20s, early 30s, so she makes me feel relatable by talking about her experiences and things like that."*

Through the provider sharing their personal experience, young women were able to feel more open to sharing their private medical information or asking for medical advice. Additionally, several young women also mentioned that they would not be willing to disclose information they shared with their female physician to a male physician. These statements allowed the research study to gather unique and insightful statements about the importance of having a female physician compared to a male physician for young women. One participant describes the relationship she has with her provider:

> *"I think that was part of what I was looking for in finding her. Somebody young and relatable, another woman. I would not feel that same way if it was a man."*

Relatability also helps establish a level of comfort for young women to share information, such as using a mom or friend-like tone. In several interviews, young women mentioned that when the provider spoke in the same tone as a mom or a friend, they felt more comfortable to share information and felt less judgement.

> *"She kind of just talks to me like we're friends, you know what I mean. She doesn't kind of you know how they how to ask you questions about how many sexual partners and all of that and I never feel judged by her or anything, probably because she's so young so she just talks to me like we are at the same level."*

Questions during visit. The questions asked by the provider contributes to the high-quality conversation on sexual health for young women because it influenced whether they will answer the question truthfully and with detail. This included asking questions about the young woman's lifestyle and questions that will spark meaningful discussion. Through asking quality questions about their lifestyle, young women were able to feel more comfortable and honest to disclose private sexual health information because their relationship with their provider was more established.

> *"Probably just by asking about like my lifestyle and life in general like when it kind of make me feel like she's going deeper in so then it kind of like makes me give honest answers."*

This can also be facilitated by starting with general questions before moving to specific questions. Several young women commented that with this method, the discussion with their provider flowed more naturally and contribute to them giving more honest answers. One young woman explained:

> *"I guess just by like asking multiple questions like if she starts out with a general question and then will ask more specifics that will kind of make you be honest by nature."*

The code, questions asked during the visit, also includes the importance of the young woman feeling comfortable to ask their provider questions. One young woman mentioned:

> *"I like the fact that she's very comfortable talking about things and she always asks me like 'What questions do you have here?' or 'What questions do you have about this?'. If I interrupt her and have a question, she'll always make sure to answer that."*

Further, young women were appreciative of providers seeking information from specialists to answer patient questions. Through seeking medical information or advice from specialists, young women felt that their medical concerns were valid and listened to by the provider. This also demonstrated that the provider does not know the answer to every question, but was willing to get the answer by seeking credible medical information from specialists. Many young women expressed that this also helped establish trust with their provider. One participant described her physician seeking information from a specialist:

> *"…she's mentioned to me before that she's gone to other providers before and things like that to ask questions."*

Additionally, the provider may recommend the young woman to see a specialist to answer medical questions, such as a gynecologist:

> *"But sometimes when I ask those questions, he will refer to me to my gynecologist. Not because he doesn't want to answer the questions, just because he knows I will get a better answer from her. So he'll answer the best he can, but then he's like you should talk to your gynecologist about it."*

Theme 2: Low-Quality Communication Style

On the other hand, young women demonstrated examples of low-quality communication that their providers use. Often, young women felt that they did not want to express their medical concerns or needs due to judgmental behavior, the provider overlooking the patients concerns, and low accessibility to the provider and/or office staff. Through these behaviors, young women expressed that they were less willing to share private sexual health information.

Judgmental behavior. The provider's judgmental behavior is categorized by eye-rolling and scoffing. Young women described when their provider displayed these judgmental behaviors,

they felt invalidated and not supported. However, one participant recognized that although her provider scoffed at a few of her comments, she knew she should continue to be honest to get the best medical advice during her appointment:

> *"Yeah even though like I know she'll scoff at some things, I know that just being honest is going to give me the best exam and it's kind of like make me get the most out of my appointment."*

Overlooks patient concerns. Further, several participants mentioned that their provider had overlooked their medical concerns by stating they did not need to worry about it, answering questions with previously stated information, or giving ambiguous answers. When the provider overlooked their concerns, young women expressed that their concerns were not valid. In some cases, overlooking the patient concerns could hinder the young woman's trust with the provider and, in the future, limit honest disclosure.

Low accessibility. Additionally, a few young women commented on the low accessibility to their provider outside of appointments. This was particularly frustrating for young women that live out-of-state and cannot make it in for an appointment or for prescriptions.

> *"I guess she's a little difficult to get a hold of outside of the office because at one point I needed to refill my birth control and it took like probably four days to finally get a hold of her and obviously that's like time sensitive."*

Theme 3: Partnership in Decision Making with Physician

Power to the patient. Power to the patient is comprised of several sub-categories, including: (a) decision-making, (b) equality, (c) takes the time with the patient, (d) listens, and (e) accepting of the patient. The power to the patient code, along with the sub-categories, represents several insights from young women to highlight their need to be involved in the

decision making regarding their health needs. Young women described that high-quality communication with their provider involves equality. Although the provider is the professional, young women expressed that they wanted to be viewed as an equal in their decision making. One participant describes this relationship:

> *"Yeah I think she just always reassures me that it's doing whatever I'm comfortable with and while I'm there it's kind of just like I'm in charge, I'm not forced to do anything I don't want to do, which obviously makes me feel comfortable."*

Further, several young women expressed the importance of the provider taking the time with them to listen to their concerns and needs. During the appointment, young women commented that they want to have their provider's undivided attention to know that they are actively listening to their concerns. A key feature of taking time to speak with the young women includes remembering previous conversation. By reviewing the young woman's medical records and previous conversations, she will not have to re-cap the previously shared information and can give updates on any changes. In addition, the information that she disclosed in a previous appointment might have been difficult for her to disclose. Through remembering previous conversations, young women expressed their comfortability to continue to share sexual health information because they can trust that their provider is taking the time to listen. One young woman explained:

> *"I've only been seeing her for a couple years, but she takes time to check in with me and she will remember things if I come into see her, so I don't have to start from square one every time I go in, which is really good."*

Finally, a provider can give power to a young woman by showing that they accept them. In other words, a provider should not show judgement towards the young woman (i.e., eye

rolling or scoffing) when sharing private information. This was particularly relevant when the provider asks questions regarding sexual partners. One participant voiced:

> *"For instance, when I was first going to see her to be put on the birth control, she had to ask me all the questions like sexual partners, all of this all of that, and she was just like very cool about it."*

The provider should also create an environment where the young woman felt that they are being listened to with no judgement, especially for sexual health related topics because the provider should give their recommendations based on the young woman's lifestyle. This allowed the young woman to feel comfortable to voice any concerns or questions that they may have. One young woman described her relationship with her provider:

> *"Yes, just because I feel like I've known her for so long. I've created that relationship with her where like she has followed me throughout the past six years and I'm able to be like 'Oh this happened' or 'Oh I have a question about this' and she's not judgmental about it all."*

Length of relationship. The length of the relationship with the provider was another key feature of the giving power to the patient. Several young women described that they had seen their provider for a few years. This longer relationship with the provider allowed the young woman to have more trust with him/her because they had established a strong relationship. One participant commented:

> *"I feel like I've known her for so long. I've created that relationship with her where like she has followed me throughout the past six years."*

Office staff. The final component of partnership with the provider is the role of the office staff. The office staff has an important role in the patient-provider relationship because often

they are the main point of contact. Two key features emerged from the interviews regarding office staff, including effective communication and accessibility. Young women commented that it is important for the office staff to call them with their medical results. In addition, young women described the ease of contacting the office through phone, online portals, and emails. This emerged as a particularly important feature for those patients that live in a different state than their provider.

Theme 4: Low-Quality Partnership

Conversely, young women demonstrated their relationship with their provider was not as strong if the provider pushed their personal beliefs. In other words, the provider did not listen to the young woman's opinions in the decision-making process and continuously pushes their recommendation. When this happened, the young women felt that their opinions are not validated, especially if the provider's reasoning did not match their beliefs. In addition, young women expressed instances where their provider pushed their personal beliefs by continuously making the same recommendation. One participant described how her provider pushed his/her personal beliefs:

> *"…my previous primary care doctor was definitely trying to push it every time I went in, even for a sick visit. He would say "You need to get it, you're twenty years old and in college". So, the fact that he was very adamant and very pushy about it, I've kind of just held back because his reasonings did not really make sense to me. His reasoning was that this is my age and I'm in college and I'm more susceptible, but I did not see fit."*

Theme 5: Medical Communication

Knowledge of medical history. A provider's knowledge of a young woman's medical history was an important factor to establishing a strong relationship with her. This included the young woman's previous medical visits and family history. Through remembering previous medical visits, a young woman felt confident that the provider listened to her and put in effort to review her medical records before the appointment. This also allowed the provider to follow up on important medical concerns that the young woman may have forgotten about. Further, a provider's knowledge of family history allowed them to make a better educated medical recommendations.

Explanation of procedure. Most participants explained that they appreciated how their provider explained procedures. This code was split into three subcategories: (a) explanation, (b) terminology, and (c) clarity of diagnosis and next steps. The first, explanation, was defined by the provider's ability to explain the procedure to the patient. A key feature of this sub-category was calming the young woman's nerves. This was particularly important for first-time procedures, specifically pap smears. One young woman expressed:

> *"…she'll talk me through any procedures and things like that that she has to do. If I have to like get a pap smear or something, she'll talk to me about it and what she's going to do before she's just doing something that I think would be terrifying."*

Next, terminology, described the language that the provider uses when explaining medical procedures. Young women indicated that it was important for providers to use medical language that patients could understand, but also "everyday" language to replace medical jargon that they may not understand. One participant commented:

> *"She talks to me in a way that explains what is going on without using medical terminology, but also not making me feel dumb. She finds that sweet spot in between."*

Along with terminology, several young women expressed that it was important to receive a clear diagnosis from their provider, as well as next steps. In other words, a strong understanding of their provider's diagnosis and treatment was appreciated. One participant explained:

> *"There's no like secrets or I'm not jumping through hoops to figure out what I need to get done. He's very clear about when he wants to see me next and very clear about his diagnosis when he makes them."*

Recommendations. Young women commented they appreciated their provider's recommendation for (a) alternative medicine and (b) discussing contraceptive methods. Several young women mentioned that their provider offered alternative medicine or remedies rather than prescription medicine. By providing the option for alternative medicine, young women expressed greater control of their health through learning how to improve their health without prescription medicine. Further, young women indicated that when their provider spoke to them about contraceptive methods, they wanted to know the medical pros and cons of their recommendation. Additionally, a majority of young women indicated that they wanted to know their provider's personal recommendation and how the recommendation specifically applied to their health. One participant described:

> *"…she's definitely has shared her personal opinion when she talks about the ones she dislikes more, she'll talk about what the pros are, but then she's also like here's the cons and why I think they're less likely. But for an example, I'm getting an IUD in a week, and she went with me when I had my pre-appointment for it, she went through*

> *and talked to me about all the pros of it and then she was like 'Here's the flipside I'm going to go through every con with you and explain what all these risks are and how they relate to you personally', which is helpful."*

Theme 6: Confidentiality

Privacy of information. Many young women felt the information they disclosed was kept private between themselves and their provider. This is particularly important for providers to stress to young women because it increase their trust. When speaking about confidentiality, young women indicated they shared that information with their provider because they showed that their personal information would not be shared to anyone else. Young women showed that they feel confident that their provider is keeping their information confidential through explicit statements and not speaking about other patients' experiences.

Privacy from parents. In addition, young women spoke about previous experiences where providers and office staff kept information confidential with their parents, specifically through phone calls and insurance. For phone calls, young women appreciated when the provider or office staff would call and make sure that they were speaking to the young woman. If a parent answered the phone, the provider or office staff would not share the young woman's information (i.e., test results). Additionally, participants mentioned that their provider or office staff would check to make sure it was the young woman's phone number in the system and not their parent. Likewise, for insurance, young women stressed the importance of their providers assuring the privacy of STD testing and contraceptive methods on their parent's insurance. Through giving their assurance, young women felt comfortable getting tested for STDs or asking for contraceptive methods without their parents knowing.

Privacy of room. Finally, young women indicated that their conversations were kept confidential when it is only them and their provider in the room. If someone else had to be present in the room (i.e., physician assistants or medical students), young women appreciated if their providers used a divider to separate that individual. One participant described:

> *"There was one time when she had like an assistant come in and first asked me "Is it okay if she scribes?" and I was like "Yeah of course". She even put a curtain to divide, so I didn't even see her, which I also just appreciated, which was really nice."*

Theme 7: Low-quality confidentiality

Lack of privacy. On the other hand, several young women expressed a lack of privacy when a physician assistant or a family member was present in the room. When other individuals were present in the room, young women felt less willing to disclose sexual health information. In these cases, providers should ask the young woman if they feel comfortable with another individual present in the room. For parents that may come to the appointment, providers should not let them into the room to allow the young women to maintain privacy, especially when discussing sensitive medical concerns or sexual health information. One participant spoke upon her experience:

> *"Yeah the last time I was there, I went the same time as my Dad cause my Dad was sick, I was just getting a check up, so I went first and I had some questions to talk about in terms of like my period and my sexual health and I didn't really feel comfortable asking with my Dad in the room and I am twenty-two it's not like. But I was kind of frustrated because I was hoping that as the doctor, he would ask like my Dad to leave for a minute, but he didn't…"*

Theme 8: Awareness of technology

A unique theme that emerged from the interviews regarded the provider's awareness of technology during the appointment. Specifically, young women mentioned that technology limited the provider's attentiveness, such as their focus and eye contact. Young women described that their provider's use of technology is helpful and efficient for them to take notes. However, it limited the provider's conversation because they were continuously typing on their computer. In some cases, young women stated that they did not like that typing notes was their focus instead of listening to their concerns. Additionally, typing notes on their laptop limited the provider's eye contact during those private, and sometimes emotional, conversations. One participant expressed:

> *"I'd say when she does look at her laptop too long and I'm just like 'Can you, hi? I'm a human. Can you look up at me for a second?' Because you're not really sure if they're like fully listening to what you are saying, so just that part I'd say."*

This theme was not seen in recent literature reviews and will be further explored in the discussion section for future research studies.

RQ2: HPV Vaccine Conversations

Three themes emerged surrounding HPV vaccine conversations: (1) awareness of benefits, (2) provider recommendation, and (3) the mother daughter relationship. Young women spoke about their personal experiences, if any, regarding HPV vaccine conversation with their provider. These conversations provided valuable insights for how providers should lead conversations about the HPV vaccine with young women (See Appendix E for an overview of themes for RQ2).

Theme 1: Awareness of Benefits

The theme "awareness of benefits" emerged as relevant in almost all interviews for young women as a factor that influenced them to receive the HPV vaccine. In conversations, several young women commented that the received the HPV vaccine due to their awareness of benefits, including general benefits, STD/STI prevention, and cervical cancer. However, for some young women, the awareness of benefits was dependent on relevant factors for themselves. For instance, if a young woman had a family history of cervical cancer, this served as the most influential factor because it was relevant to their health. Ultimately this theme aimed to highlight the importance of making a young woman aware of the benefits of the HPV vaccine, specifically in relation to her health.

General benefits. This sub-category of the theme speaks upon the young woman's awareness of the general benefits that the HPV vaccine can prevent, such as the negative consequences. Many young women indicated that they wanted to understand the adverse health effects of not receiving the vaccine. One participant mentioned:

> *"Probably just like the consequences of if I don't get vaccinated.* ***Like the negative benefits or what could happen?*** *Yes."*

STD/STI prevention. Young women also commented that they had received the HPV vaccine because their provider stressed the prevention of STDs/STIs. Considering young women spoke upon this benefit as an influential factor, providers should emphasize that the highest risk timeframe for HPV acquisition is between the ages of 17 and 26 (Dunne et al., 2007). Through showing statistics that are relevant for their age range, young women will see the direct positive benefit to their health. One participant shared her personal decision to get the vaccine:

> *"I think when I thought I had chlamydia so I went to her just like out of the ordinary and she just wanted to like reassure and just wanted to make sure that it was nothing else so that's when she like brought up the HPV [vaccine] also."*

Cervical cancer. Several young women spoke to their decision to get the HPV vaccine due to the prevention of cervical cancer. This is particularly relevant for young women if there is a family history of the cancer. If a provider is aware of a young woman's family history of the cancer, they should lead a conversation of its prevention and recommend her to get the vaccine. One participant spoke upon her family history of cervical cancer:

> *"The only thing I really remember is that getting it had the chance to help prevent cervical cancer down the line and in my family that was definitely a good thing."*

Theme 2: Provider Recommendation

The theme, "provider recommendation," highlights the important role a provider plays in the decision for a young woman to receive the HPV vaccine, specifically her trust in the provider's recommendation. Most young women commented that they had received the vaccine due to their trust in the provider, including the sub-categories (1) the length of their relationship, (2) approaching the vaccine as a "new shot", (3) strong understanding of the process and timeline, and (4) providing a pamphlet as a secondary resource. In almost all cases, young women received the vaccine because they spoke upon their trust in the provider's strong recommendation.

Length of relationship. Trust in the provider's recommendation is reinforced by the length of the relationship between the provider and the young women. Young women expressed that they were influenced to get the HPV vaccine because they had been with their provider for numerous years, thus they had a strong trusting relationship with him/her. For instance, one

participant voiced that she would not have received the vaccine if her gynecologist had recommended it because she was new to the practice and had just started seeing her. Comparatively, she decided to receive to the HPV vaccine with her pediatrician that she had seen for fourteen years and trusted his recommendations. This is further supported by one participant stating:

> *"I thought that it was helpful because it was something that I was very unsure about, so getting him, a doctor that I'd seen forever like agreeing with it, especially because he was an older doctor so I felt he would be more skeptical of something brand new coming out and that might be like bias but. And then like my mom did the research, so I trusted the two of them.* ***Because they are two people you trust?*** *Yeah."*

Approach the vaccine as a "new shot". In addition, young women mentioned that their providers approached their conversations about the HPV vaccine by showing it was a "new shot" they had to receive. By approaching it as a "new shot", many young women felt that the conversation was casual and common to get for their age. Therefore, they trusted their provider's recommendation because they recommended the vaccine as a "new shot" to get at their age.

Strong understanding of process and timeline. In several conversations, young women voiced their provider's clarity of description on the HPV vaccine process and timeline. The HPV vaccine is particularly confusing to understand because the amount of shots given is dependent on the patient's age. As previously mentioned in RQ1, the clarity of the provider's diagnosis and next steps for treatments was important for a high-quality medical recommendation. In relation to the HPV vaccine, young women also wanted clarity and a

strong understanding of the vaccine's process and timeline to get the three shots. One participant explained:

> *"I think it's like helpful definitely to know like I know she kind of like told me the whole process of like the timeline of like when you had to get each shot by just to make sure like if I'm going to go get a shot like you want to follow up and make sure it's within the right timeline. I think she definitely just like really gave me like information about it and just like the benefits and stuff."*

Provide a pamphlet as a secondary resource. When asked if participants would like to receive a pamphlet on the vaccine, young women expressed that this would serve as a helpful secondary resource to understand the HPV vaccine. Young women commented on the ease of reading pamphlets due to their simple text, bullet point style, and pictures. Pamphlets also served as beneficial educational resources because the young woman can take it home and read credible information about the vaccine. Along with pamphlets, providers could also consider giving informational sheets on the vaccine from trustworthy health organizations (i.e. CDC or Planned Parenthood).

Theme 3: Mother Daughter Relationship

The mother daughter relationship emerged as a particularly interesting theme because it was not seen in previous literature reviews regarding HPV vaccine narratives for young women. Many participants that had received the HPV vaccine, especially in their young teen years, expressed that it was their mother's decision to get the vaccine. Several young women gave valuable insights regarding the influential role that parents play on their decision to get the vaccine. Providers should be aware of the parent's role and their research to ensure young

women are able to make their own informed health decision. This theme will be further reviewed in the discussion section and its applicability for future research studies.

Parental Decision. Most young women spoke about the role their parent played in the decision to receive the vaccine. Young women emphasized their parent made the ultimate decision in getting the vaccine. In several cases, mothers indicated they wanted their daughter to get the vaccine before it was made available or before the provider had begun a discussion on the vaccine. Meanwhile, if the parent was not present in the room, the young woman stated they would seek advice or support from them, specifically their mother, on if they should receive the vaccine. One participant spoke upon her personal experience:

> *"My mom wanted me to have the HPV vaccine before it was available. I have memories of specifically going to my pediatrician as a teen and my mom asking repeatedly on repeated visits, 'Can she get it yet? Can she get it yet?' And it wasn't ready, so I got it right away. So I guess really what I can share, it was something my mom felt really strongly about me getting, so I don't remember having a conversation."*

Parental Research. Additionally, parental research on the vaccine played an influential factor for young women to receive the HPV vaccine because they relied on their mother and other females (i.e. grandma and stepmom) as a key informational source. Therefore, young women demonstrated they were reliant on these individuals for their knowledge on the vaccine. Providers should be aware of the influence of the parental research in a young woman's decision to get this HPV vaccine. With this knowledge, providers can be prepared to better communicate and provide educations information about the vaccine to the young woman's parents.

RQ3: Provider Communication and Reflections

The final research question focused on provider's perception of their communication and reflections. For this research questions, the results were analyzed into two categories: sexual health conversations and HPV vaccine conversations. Themes related to sexual health conversations include: (1) communication style, (2) partnership, (3) medical communication, and (4) confidentiality. While, HPV vaccine conversations themes include: (5) benefits, (6) parental role, (7) recommendation, and (8) safety of the vaccine. Although the provider's themes are titled similar to young women's themes, the corresponding codes, sub-categories, and quotes differ from conversations with young women.

Theme 1: Communication Style

Conversations with providers indicated several aspects of their communication style when discussing sexual health with their young female patients. This theme is categorized by: (a) strong fluency among their patients, (b) asking general to specific questions, and (c) sharing their honest expertise. These three codes appeared as the three most relevant strategies that providers use. First, one provider emphasized the strong fluency, or high health literacy, among their patients. Young women seemed knowledgeable to this physician and able to articulate their concerns.

Next, providers emphasized asking questions from general to specific. For instance, beginning the conversations with "Is this your birth date?" to "What brings you in today?" to specific questions about their sexual health. The provider emphasized that going from "easy" questions to "tougher" questions was a way to build rapport with their patients. It also served as a helpful method to ease into conversations, especially if a young woman was showing uncomfortable body language. Finally, providers stressed the importance of sharing their

honest expertise, meaning they are upfront if they did not have the answers to a young woman's question(s). One provider explained:

> *"I try to convey that I'm a safe place, you can talk to me, and also I have a lot of the answers and I am very upfront if I don't have the answers, "I'm not sure about that, but I'm going to try and find out for you". But I think just conveying both a level of comfort and safety in the conversation, but also a level of expertise so they know the person they're talking to knows what to do."*

Theme 2: Partnership with Young Woman

Further, the theme, "partnership with young women," related to giving power to the patient by showing acceptance and following the young woman's lead. This theme emerged due to providers emphasizing the importance of making young women feel comfortable to be honest in their conversations when disclosing sexual health information. This comfort level and strong rapport can be created by the provider showing they are comfortable with discussing sexual health. Providers also explained they show their acceptance of a young woman by not displaying judgment and ensuring confidentiality of their conversation. One provider expanded upon this by stating:

> *"The most important thing is developing a rapport and comfort level because I want them to feel comfortable, they can tell me anything, it's not going to leave that room, I'm not going to judge you, they can tell me anything."*

Providers may also give power to the young woman by following their lead during conversations. Through asking the young woman to explain in their own words why they are at the appointment, the provider was giving them the power to feel comfortable to lead the

conversation. This emerged as particularly relevant for urgent care providers because patients are seeking medical care for a specific concern. One provider explained:

> *"I'm pretty direct to start the conversation with "Okay, why are you here today?" so then they can tell me in their language why they are here and then I just follow that lead and then we get into the sexual health questions, which there are certain ones I touch base on."*

Theme 3: Medical Communication

The provider's perspective of medical communication relates to codes of speaking in technical language and providing informational sheets. Technical language refers to the provider using medical terminology compared to everyday language to describe the patient's health. For instance, one provider stated, "inflammation of the cervix." This code was particularly different from the female's suggestions for high-quality strategies and will be furthered highlighted in the discussion section. Providers also stressed that they use informational sheets to answer any additional questions, especially for the HPV vaccine.

Theme 4: Confidentiality

Both providers stressed the importance of confidentiality between themselves and young women through (a) having a translator that it not a family member, (b) only the patient in the room, (c) expressing explicit confidentiality, (d) maintaining privacy from parents, (e) and recognizing barriers for young woman. Providers emphasized that these are the five most important factors to establish confidentiality with young women. First, through having a translator that is not a family member, the young woman can "feel comfortable talking about delicate sexual issues or STD risk." Providers further emphasized the importance of only the patient in the room:

> *"For young women and older teenagers, I like to speak with them alone and not with a parent or other family members in the room. And often it's a good idea, some of the patients will come with their partner or boyfriend or husband, and I'll always try to speak with the patient alone, just if there's personal issues she wants to bring up without the partner there, including domestic violence."*

In addition, providers demonstrated that they utilized explicit confidentiality by clarifying that they are a safe space for a young woman to speak about any medical concerns they have. Next, providers commented on maintaining privacy from parents, especially in case of insurance. However, providers expressed there is a challenge to guarantee that counseling for birth control or STI screening will be hidden on the parent's insurance. Finally, providers commented on recognizing barriers for young women to disclose all information related to the sexual health history or concerns.

Theme 5: Benefits of the HPV Vaccine

For the benefits of the HPV vaccine, codes included (a) prevention of abnormal pap smears, (b) general benefits, (c) STD/STI prevention, and (d) cervical cancer prevention. These codes were identical to those that young woman mentioned, with the addition of prevention of abnormal pap smears. Providers communicated that they highlight these four benefits to young women during their discussions. When explaining the importance of receiving the HPV vaccine, one provider referred to the vaccine as "cancer prevention," as well as explaining the different strains of HPV.

Theme 6: Parental Role

During conversations regarding the HPV vaccine, providers recognized the role parents play in the health decision. One provider emphasized that the parent does not want the child to be

sexually active. Therefore, this is a recognized barrier that prevents young women from receiving the vaccine, especially when in their young teenage years (ages 11-13). Although this is not necessarily a barrier for young women, it is important that providers are recognizing the parental role in their child's decision to get the vaccine. Meanwhile, one provider described that she followed how the vaccine was marketed towards both the parent(s) and their child in the vaccine's commercials:

> *"I kind of got this idea from the commercials for the HPV vaccine because the way that they decided to try and market this so that more young adults and their parents, generally because the parents are a lot of times making the decision for the eleven and twelve year old or the seventeen year old a lot of times are making those decisions."*

Theme 7: Recommendation

Providers indicated that their recommendation was dependent on (a) the vaccine being logged into the patient's medical records, (b) showing data of the success of the vaccine to influence the young woman's decision, and (c) pushing if the young woman has a high risk to HPV. Both providers spoke upon the fact that they glance through a young woman's medical records before recommending the vaccine. However, in an urgent care setting, health care providers might not have access to that record, which poses a barrier to recommending the vaccine. Further, one provider highlighted that they show data of the success of the vaccine, such as significantly fewer cases of cervical cancer. While, the other provider emphasizes high risk HPV during their recommendation to young women.

Theme 8: Safety of Vaccine

Providers also spoke on communicating the safety of the vaccine to young women. This is particularly relevant for young women that do not like shots, as well as those that have

misconceptions of the vaccine. Misconceptions surrounding the vaccine exist because the vaccine is recommended, not required. This commonly leads to patients expressing, "*Well why would I get an additional something injected into my body. It has not been around long enough. It's not safe*." Therefore, during HPV vaccine conversation, providers must be prepared to highlight the safety of the vaccine and answer any misconceptions a young woman and/or her parent(s) might have.

DISCUSSION

The goal of this study was to further explore how to enhance provider communication with young women regarding sexual health and the HPV vaccine. The narratives from young women allowed for a greater understanding of their perspectives of their providers. Taken together with physician conversations, which reflect different patterns of communication, all suggests further improvement is needed. The themes from the three research questions are further discussed as recommendations to enhance patient-provider conversations on sexual health and the HPV vaccine are put forth.

Conversations from young women regarding their sexual health revealed that high-quality conversations are a result of their provider creating a welcoming environment. For young women, discussing sexual health is a sensitive and, in some cases, an emotional conversation. Young women are looking for a trusting and open relationship with their provider to allow them to ask questions and discuss sexual health concerns. To strengthen this relationship, young women commented on their provider's relatability by offering her/his own personal experiences and speaking in a mom or friend-like tone. These qualities of a provider contributed to creating a welcoming environment, as well as a young woman's connection

with their provider. Young women also discussed the importance of being viewed as an equal in their decision making with their provider. By being viewed as an equal, young women can feel confident that the provider is listening to their sexual health concerns. This also allowed young women to feel they are a part of the decision making surrounding their health. For instance, when a young woman asked her provider about contraceptive methods, she wanted to be an active part of that conversation, rather than listening to the provider's recommendation. Finally, young women emphasized the importance of maintaining privacy and confidentiality with their provider to create a space where they can feel open to be honest in their conversations.

HPV vaccine conversations from young women revealed the importance of explaining the benefits of the vaccine and receiving a recommendation to get the vaccine from their provider. When young women were aware of the benefits, particularly the prevention of STD/STIs and cervical cancer, they were more willing to get the vaccine. With these benefits, young women spoke about the relevance to their personal health. For instance, young women commented that they had received the HPV vaccine due to their provider speaking about their susceptibility to STDs. Along with the benefits, young women spoke about the role that their provider and parent(s) played in their decision to get the HPV vaccine. In most cases, the provider recommended that the young woman get the vaccine and due to her parent's support and research of the vaccine, she got the vaccine. However, there were a few exceptions when the young woman's mother pushed her to get the vaccine without the provider recommending it. Ultimately, the conversations with young women highlighted the influence and importance of the provider's discussion and recommendation to get the vaccine.

Finally, provider insights on conversation regarding sexual health and the HPV vaccine revealed a difference in patterns of communication, particularly (a) assuming strong fluency among young women and (b) using technical language to describe medical procedures. By assuming young women have strong fluency, or high health literacy, the provider is potentially hindering a young woman's understanding. Although the young woman may appear that she is understanding the conversation, she may feel nervous to ask the provider to re-explain. In several conversations, young women spoke about the importance of finding a "sweet spot" in between medical terminology and everyday language, as well as having a strong understanding of their diagnosis and next steps. If providers avoid medical jargon in their conversations, young women can feel confident that they understand the medical procedure, diagnosis, and next steps for treatment. Unfortunately, results suggest that when describing the benefits of the HPV vaccine, providers spoke in technical medical terms. By speaking with medical terms, rather than everyday language, the provider is potentially creating a divide with the young woman because they are not relating the benefits directly to her health. These factors contributed to a difference in patterns of communication between young women and providers. In the future, providers should work to avoid these factors to create interactive conversations with their young female patients.

Overall, these research questions uncovered three overarching recommendations to enhance provider conversations regarding sexual health and HPV vaccine for young women: (1) take the time to listen to the patient's medical concerns and lifestyle influences, (2) recognize the importance of establishing trust and confidentiality, (3) use "everyday" language to explain medical recommendations and provide supplementary materials (i.e. informational sheets and pamphlets). The following recommendations aim to encompass most of Street (2017)

multidimensional definition of patient-centered communication. Ultimately, these recommendations aim to better engage young women in their health and well-being by exploring the patient's biopsychosocial, creating or reinforcing trust, explaining the disease and treatment options in a way the patient understands, active participation in conversation and decision-making, and producing decision that align with the patient's values.

Takes Time with the Young Woman

Although medical appointments are limited to a time-frame, young women demonstrated that it is essential for the provider to take the time to listen and speak to her about her medical concerns, as well as her lifestyle (i.e. school, romantic partners, friends, hobbies, etc.). During their conversations, several young women emphasized that their provider was "present" in their conversations, meaning they were actively listening to their experiences. One young woman described that her provider, "…definitely it makes me feel like she's taking the time to have the appointment with me…" Another young woman further explained that her provider takes the time to check in with her about previous medical concerns, but will also remember previous comments so she does not have to repeat her worries. By checking the young woman's medical records, the provider is demonstrating that they took the time before the appointment to remember previous conversations. Additionally, this allows the appointment to be more efficient and gives more time for the patient to talk about new concerns.

Beyond medical concerns, young women stressed their appreciation for when their provider asks them about their lifestyle. The importance of speaking to a young woman about their lifestyle has been discussed in previous literature as (a) an interactive communication style

and (b) showing attention to youth specific contextual influences (Minnis et al., 2014; Wittenberg, 2009). Young women emphasized that their provider took the time to ask them questions beyond their medical concerns. For instance, one young woman commented that her provider takes the time to ask her about graduate school and is genuinely interested to hear about her studies. By asking questions about her lifestyle, one young woman commented, "it's [a] more comfortable setting, rather than just hearing about my medical needs and just in an out really fast." Additionally, another young woman explained questions about her lifestyle, "…makes me feel like she's going deeper in so then it kind of like makes me give honest answers." Further, young women felt that conversations that included questions about their lifestyle were not as "uniform" because "[the provider] just talks to you about life and everything possible." Previous research also demonstrated a need to ask patients questions outside of a "checklist of items" (Fuzzell et al., 2016). Questions about the young woman's lifestyle demonstrates to them that their provider genuinely cares about them as a person, thus creating a more honest and open discussion about sexual health.

Importance of Establishing Trust and Confidentiality

Throughout the discussions with young women, the importance of trust and confidentiality was brought up numerous times regarding sexual health conversations, as well as the decision to get the HPV vaccine. Confidentiality and privacy also emerged as a common theme in previous research studies as an influencing factor to disclose sexual health information (Fuzzell et al., 2016). If there is a fear of privacy, the young woman may feel prohibited from disclosing sexual health information (Samargia, Saewyc, Y Elliott, 2006). During conversations, young women felt confident that they could have trust in disclosing sexual

health information because of explicit confidentiality statements, being the only one in the room, and privacy from parents. Providers should do their best to establish trust with the young women by guaranteeing their conversations will remain confidential. This is particularly important for conversations regarding sexual health because females have a higher concern for confidentiality and it can potentially decrease their usage of STD services (Breuner & Mattson, 2016; Leichliter, Copen, & Dittus, 2017).

Explaining Medical Recommendations

Finally, conversations with young women about sexual health and the HPV vaccine revealed that providers should recognize the importance of explaining medical recommendations to influence their acceptance of the recommendation. Previous research found young women's willingness to get the HPV vaccine was strongly influenced by the physician's discussion and recommendation, including explicit health care provider messages, thoughtful conversations about the HPV and the benefits of the vaccine, and addressing the safety and cost (Rosenthal et al., 2010; Hopfer & Clippard, 2011; Yang & Pitman, 2017; Nan, 2012). In this case, young women expanded upon this literature by demonstrating a need for (a) limiting medical jargon and (b) giving supplementary health materials to influence their medical decisions. Young women voiced that provider should work to find a "sweet spot" between using medical terminology and everyday language to communicate medical recommendations. By limiting medical jargon, providers can better explain the procedure and diagnosis in terminology the young woman can easily understand. For instance, one young woman mentioned that if her provider used medical terms to describe why she should get the HPV vaccine, she would "definitely get confused" and "glaze over" information. Several young women also indicated

the helpfulness of providers giving supplementary health materials on the health topic they discussed during their appointment. By giving supplementary materials, such as informational sheets and pamphlets, young women can leave the office with credible information, rather than using the Internet to find resources.

Limitations

One limitation of this study was that the student sample was not ethnically diverse. The majority of participants identified as of not Hispanic, Latino, or Mexican origin. In addition, several participants were communication students. Therefore, they may have a heightened awareness on health communication and interpersonal relationship. Future research exploring enhancing provider communication for young women should consider reaching out to a more diverse pool of participants, particularly race, ethnicity, and socioeconomic status.

Another limitation of this study was not all the themes had a high and low-quality category. This was because the researchers wanted to stay true to the data and drive the themes inductively (Fisher, 2019b). However, if all the themes had high and low-quality categories, it may have been easier to suggest quick recommendations for provider to enhance conversations regarding sexual health and the HPV vaccine.

Finally, prior to beginning the interview, the researcher did not ask the young woman if she had received the HPV vaccine. Rather, this was asked during the interview, which led the young woman to either describe the conversation she had with her provider to get the vaccine or describe how she would like that conversation to go if she did not have the vaccine. This led to a lack of control with the length of time between a young woman's discussion with her provider about the HPV vaccine and the interview. In some cases, young women had discussed the vaccine with their providers over ten years ago, while other young women had

discussed the vaccine less than five years ago. By asking participants to recounter the conversations they had with the provider to get the vaccine, this created a potential for the young woman to lack details of remember specifics. Several participants were honest to admit that they did not remember specific comments made by their provider because they had received the vaccine in their young adolescents, some as early as eleven or twelve years old. Future research should consider asking participants prior to the research if and when they had received the HPV vaccine and only conduct interviews with those that had received it in the last year or had not received it to prevent recall bias.

Future Research

Throughout the data collection, two unique themes emerged from the data that had not been seen in previous literature. The first is to investigate how to better incorporate technology into the provider's office space to enhance the patient experience without limiting attentiveness. Currently, the provider walks into the appointment holding their laptop and immediately starts typing everything that the young woman is telling them. Although this is helpful for post-appointment records, the provider may neglect to make eye contact with the young women when they are disclosing sensitive and private sexual health information. Future researchers should consider investigating the potential divide that technology is creating between the provider and patient.

The second area of research that researchers could consider exploring is the parental influence on receiving the HPV vaccine, specifically with the mother-daughter relationship. During conversations about the HPV vaccine, several young women mentioned that their mother played a role in their decision to get the vaccine. Providers also commented on the importance of knowing how to speak to the parent about the HPV vaccine because in most cases they are

the ones making the decision for their child. Several young women also mentioned that they seek sexual health advice from their mother, as well as see the same provider as their mother. The relationship between a mother and daughter could be interesting to explore in other areas of health.

Reflection

Through this research study, I was able to better understand on how to conduct qualitative research. This was my first time conducting qualitative research and it was a learning experience, but it expanded my knowledge on how to conduct this form of research. The opportunity to conduct qualitative research also allowed me to better understand my own population, young women. It was truly a rewarding experience to have conversations with fellow young women regarding their communication with their provider. After I finished conducting interviews, I internally reflected about my previous conversations with my providers and ways that I would like to see their communication change. I believe, moving forward, these themes and recommendations will help to enhance provider communication and improve sexual health conversations for young women.

CONCLUSION

The collection of qualitative data allowed for a greater understanding of young women's perspective of their provider. The themes from each research question highlight areas of high and low-quality strategies for providers in their conversations with young women, including three overarching recommendations. In addition, the data that was gathered can be used in future research studies to continue to enhance patient-provider communication for young

women. Ultimately, this research study was able to collect insights from young women on how to better tailor provider communication regarding sexual health and the HPV vaccine.

APPENDICES

Appendix A – Demographic Information for Participants (Young Women)

Age[a]	21.36 (19-26)
Gender Identity	
Female	11
Class Year	
Freshman	0
Sophomore	2
Junior	2
Senior	4
Graduate	3
Ethnicity	
Not of Hispanic, Latino or Mexican Origin	10
Mexican, Mexican American, Chicano	1
Puerto Rican	0
Cuban	0
Other	0
Race	
White	9
Black or African American	0
American Indian or Alaska Native	0
Asian Indian	0
Chinese	0
Filipino	0
Other Asian	1
Japanese	0
Korean	0
Vietnamese	1
Native Hawaiian	0
Guamanian or Chamorro	0
Samoan	0
Other Pacific Islander	0
Other race	0

[a] Values are mean (range), in years

Appendix B – Demographic Information for Participants (Physicians)

Age[b]	43.50 (38-49)
Gender Identity	
Male	1
Female	1
Other	0
Current level of education	
Master's of Science	1
Ethnicity	
Not of Hispanic, Latino or Mexican Origin	2
Mexican, Mexican American, Chicano	0
Puerto Rican	0
Cuban	0
Other	0
Race	
White	2
Black or African American	0
American Indian or Alaska Native	0
Asian Indian	0
Chinese	0
Filipino	0
Other Asian	0
Japanese	0
Korean	0
Vietnamese	0
Native Hawaiian	0
Guamanian or Chamorro	0
Samoan	0
Other Pacific Islander	0
Other race	0

[b] Values are mean (range), in years

Appendix C – Sample Interview Questions

Sexual Health Conversation	Describe your relationship with your provider. Do you feel comfortable speaking to [insert doctor name]? Why or why not? Can you give me examples on how [insert doctor name] encourages you to be honest during your conversation with them? Do you feel that your conversation with [insert doctor name] is confidential? Why or why not? Does [insert doctor name] give information about various types of contraceptive methods? If so, what kinds? Would you like to have conversations with [insert doctor name] about different types of contraceptive methods? Why or why not?
Vaccinated	Let's talk a little bit about your decision to get the HPV vaccine. Will you tell me about how that came about? Did you talk with a parent before deciding? Did [insert doctor name] talk about the benefits of getting the vaccine? Did [insert doctor name] give a recommendation to get the vaccine? What do you think about what [insert doctor name] said?
Unvaccinated HPV	Let's say [insert doctor name] mentioned something about the vaccine to you. How do you think that conversation might go? How would you want that conversation to go? What would you want your doctor to talk to you about? If [insert doctor name] gave you a recommendation to get vaccinated would you listen to their recommendation? Would you get the vaccine if you knew the benefits? Would you consult someone (friend, parent, or a close relative) before getting the vaccine?

Appendix D – RQ1 Themes

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Communication Style	Personality of Provider	Informative/factual knowledge: *"I feel like whenever I tell him something, once again, he'll just give an example or he's just really informative whether it's through a story or like medical facts."*
		Efficiency: *"I would say, well she's also pretty efficient. I don't feel like I'm just sitting there being drilled with questions. Obviously, the nurse comes in first, and then when she comes in, we get to the point because not everyone loves the doctors, I know I don't, so she kind of gets through with it but makes sure I have answered all my questions and all that."*
		Humor: *"He also kind of uses humor, which I was kind of like takes down any sort of tension and so it's a relax setting with him."* *"He makes a lot of jokes, but not like inappropriate jokes, like jokes that are like timely and funny."* *"She definitely uses some humor, some sarcasm."*
		Constant communication: *"…we're just constantly talking and it just kind of takes your mind off of like when they're doing exams and all the uncomfortable, all the physically uncomfortable stuff."*
		Concerned tone of voice: "*Just by like her tone of voice, like she's like very concerned, especially cause like she knows my family history. She's very sincere when she's asking about my life and stuff like that just because she knows everything that I've been through."*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Communication Style	Relatability	Welcoming: *"The first time I met her I was really nervous and she just was like very welcoming and she was like everyone goes through it."* *"She is really reaffirming."* *"…she does make me feel more comfortable because it's not less weird of a setting where you walk in put the robe on and then they stare at you and ask you questions. I get to just stay in my clothes and then if she has to check something, she will. But its more like casual."*
		Personal experience: *"She's like very straightforward about things that I need to do and experiences that she's had."* *"She's like younger, in her late 20s, early 30s, so she makes me feel relatable by talking about her experiences and things like that."* *"I think that was part of what I was looking for in finding her. Somebody young and relatable, another woman. I would not feel that same way if it was a man."*
		~~Hugs: "She also hugs me at the end of every visit. So the first time, I thought it was weird because I was fourteen and I'm like she just hugged me, but now I love it, every time I go there I wait for the hug at the end."~~
		Mom or Friend-like Tone: *"I do appreciate the way she talks to me because I'm very comfortable talking to my mom and how kind of my mom communicates with me about that type of stuff."* *"She kind of just talks to me like we're friends, you know what I mean. She doesn't kind of you know how they how to ask you questions about how many sexual partners and all of that and I never feel judged by her or anything, probably because she's so young so she just talks to me like we are at the same level."* *"She talks to me like a daughter pretty much like she just makes me feel comfortable."*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Communication Style	Questions During Visit	Easy to ask provider questions: *"Yeah I guess that she always starts off with asking me about how I'm doing and if I have any questions before she kind of gets into things that she has to do or wants to do so I guess it's just again showing it's all about me."* *"I like the fact that she's very comfortable talking about things and she always asks me like 'What questions do you have here?' or 'What questions do you have about this?'. If I interrupt her and have a question, she'll always make sure to answer that."* --- Asks about patient's lifestyle: *"Probably just by asking about like my lifestyle and life in general like when it kind of make me feel like she's going deeper in so then it kind of like makes me give honest answers."* --- Use questions to spark patient discussion: *"Cause I'll kind of go in with a list of things that I want talk about, but then like her questions kind of make me think of other things that maybe I didn't think was a problem or just didn't realize that I wanted to talk about."* *"I guess just by like asking multiple questions like if she starts out with a general question and then will ask more specifics that will kind of make you be honest by nature."* --- Seeking specialists for answers to questions: *"…she's mentioned to me before that she's gone to other providers before and things like that to ask questions."* *"But sometimes when I ask those questions he will refer to me to my gynecologist. Not because he doesn't want to answer the questions, just because he knows I will get a better answer from her. So he'll answer the best he can, but then he's like you should talk to your gynecologist about it."*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Communication Style	Questions During Visit	Slow and concerned tone of voice: *"She kind of talks like slower and kind of has a more concerned like questions and she'll ask a lot of questions and if I give shorter answers, she'll ask me to elaborate or relate it back to previous stuff cause she'll like look at my records and be like 'Oh yeah like you had this problem a few years ago' or 'Does it feel like when you had this?"*
Low Quality Communication Style	Judgmental Behavior	Eye-rolling: *"She's rolled her eyes at me a couple times or just kind of been like 'Seriously you have to do this."*
		Scoffing: *"Yeah even though like I know she'll scoff at some things, I know that just being honest is going to give me the best exam and it's kind of like make me get the most out of my appointment."*
	Overlooks patients concerns	*"I'll have a concern and she'll be like 'Oh you don't need to worry about that' and just like move on."*
		"Sometimes she'll like repeat things that she had like if I come in with the same problem and then she'll be like 'Oh well here's this same paper that I gave you last time, do these things before you go to sleep, or like whatever' and I'm like 'Dude like this didn't work'. That's the only thing it's like sometimes if doctors can't figure out like what it is or like if you need to go see a specialist while you're seeing them they just kind of like give you the same brochure and information."
		"Sometimes if I have a question, she doesn't really give a straight answer."
	Low accessibility	*"I guess she's a little difficult to get a hold of outside of the office because at one point I needed to refill my birth control and it took like probably four days to finally get a hold of her and obviously that's like time sensitive."*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Partnership	Power to the patient	Decision-making: *"I'm definitely all about the patient-doctor relationship and the decision-making being, you know obviously the doctor is the expert, but also listening to the patient and their needs."* *"Yeah I think she just always reassures me that it's doing whatever I'm comfortable with and while I'm there it's kind of just like I'm in charge, I'm not forced to do anything I don't want to do, which obviously makes me feel comfortable."* --- Equality: *"I think just kind of as a professional, but also an equal. Like my decision making is also a part of the process. Where as, I had my allergist, he makes all the decision and it's his way. So I like that."* --- Take the time with the patient: *"I've only been seeing her for a couple years, but she takes time to check in with me and she will remember things if I come into see her, so I don't have to start from square one every time I go in, which is really good."* *"I guess like she's definitely it makes me feel like she's taking the time to have the appointment with me and it's nice like because her style is also comforting and just like helpful."* --- Listens: *"I feel like when I'm talking to her she won't interrupt me, she'll listen to what I have to say, and then give her input or she'll suggest something and then try to get my input based off it."*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Partnership	Power to the patient	Accepting of the patient: *"For instance, when I was first going to see her to be put on the birth control, she had to ask me all the questions like sexual partners, all of this all of that, and she was just like very cool about it."* *"Yes I definitely do. I don't feel like she judges me. She's been really understanding if I bring up issues, she's not putting even like unintentional judgment with maybe this is happening because x, y, and z or maybe you should be doing different. She doesn't do that."* *"Yes, just because I feel like I've known her for so long. I've created that relationship with her where like she has followed me throughout the past six years and I'm able to be like 'Oh this happened' or 'Oh I have a question about this' and she's not judgmental about it all."*
	Length of the relationship	Longer relationship establishes trust: *"I feel like I've known her for so long. I've created that relationship with her where like she has followed me throughout the past six years."*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Partnership	Office Staff	Effective communication: *"The office always calls me to remind me about appointments and if I have any testing done or have any lab results they call me within like 24 or like 48 hours no matter what the results are, so that's nice because I know sometimes doctors will only call you if it's bad news, so it's nice to be reassured either way."* Accessibility: *"His office is really easy to contact. I call them frequently, especially being out of state. I've had like no issues with communication despite being in Rhode Island."* *"I like that she's clear. And she also uses, we have an online portal for our patients, so she uses the app, which is like an emailing thing, as well as in person we communicate when I go in for a visit. So, we have a different, diverse communication.* ***So you can reach out to her even if your not in the office?*** *Correct, yes."*
Low Quality Partnership	Pushes personal beliefs	*"I think sometimes she pushes personal preferences or personal beliefs, which I understand as a doctor there are certain things you have to push. But like I feel like for personal reasons, there's things I don't necessarily agree with..."* *"…my previous primary care doctor was definitely trying to push it every time I went in, even for a sick visit. He would say "You need to get it, you're twenty years old and in college". So the fact that he was very adamant and very pushy about it, I've kind of just held back because his reasonings did not really make sense to me. His reasoning was that this is my age and I'm in college and I'm more susceptible, but I did not see fit."*

*Bold font indicates that interviewer is speaking

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Medical Communication	Knowledge of medical history	Previous medical visits: *"He remembers everything from like your last meeting. I'm not seeing him until December and the last time I saw him was July, but I guarantee when I walk into the office, he's going to be like 'Oh yeah so in July we talked about this, this, and this' and I'm going to be like 'Oh yeah did we?' So yeah just in general he puts in a lot of effort with his patients its clear."*
		Family History: *"…she knows my family history so like maybe if there's something going on with me, she can be like 'Oh yeah well with your Dad that was one of his symptoms' or something like that so that's helpful."*
	Explanation of Procedure	Explanation: *"…she'll talk me through any procedures and things like that that she has to do. If I have to like get a pap smear or something, she'll talk to me about it and what she's going to do before she's just doing something that I think would be terrifying."*
		Terminology: *"… I would want to be in terminology that I can understand because I would definitely get confused if she was just saying like all the medical terms that would be like glazed over for I wouldn't know."* *"She talks to me in a way that explains what is going on without using medical terminology, but also not making me feel dumb. She finds that sweet spot in between."*
		Clarity of diagnosis and next steps: *"There's no like secrets or I'm not jumping through hoops to figure out what I need to get done. He's very clear about when he wants to see me next and very clear about his diagnosis when he makes them."*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Medical Communication	Recommendations	Offers alternative medicine: *"She kind of like gives me options and she is really against giving out medications. She likes to have alternative remedies. So I like that."* *"They do use prescription medicine, but they also prefer to suggest alternatives first."* --- Shows pros and cons and gives personal recommendation: *"…she's definitely has shared her personal opinion when she talks about the ones she dislikes more, she'll talk about what the pros are, but then she's also like here's the cons and why I think they're less likely. But for an example, I'm getting an IUD in a week, and she went with me when I had my pre-appointment for it, she went through and talked to me about all the pros of it and then she was like 'Here's the flipside I'm going to go through every con with you and explain what all these risks are and how they relate to you personally', which is helpful."* "***So she gives her personal opinion about stuff?*** *Yeah.* ***Does she also show the medical pros and cons or mostly her opinion?*** *She does, when that happened she told me more about the medical side, but then also her opinion."*

*Bold font indicates that interviewer is speaking

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Confidentiality	Privacy of Information	Explicit statement: *"…every time I would go into her office, she always like reminds me that everything is confidential and that nobody talks about any of my medical information."*
		Does not speak about other patients: "*She doesn't talk to me about other people, which makes me think she is not doing the same thing about me to somebody else."*
	Privacy from Parents	Phone Calls: *"I know they've called my parents on accident before and I know from experience they will literally be like 'Oh sorry we can't talk to you' and hang up on them."*
		Insurance: *"…and she would be like, 'Okay cool, we're going to have you do STD testing and I'll write it off so you're Dad doesn't see when he gets the bill."* *"Yeah I think just letting me know that it's confidential. I think, for example, when I was considering going on birth control I didn't want my parents to see that on insurance, but she assured me that because I'm over eighteen it's like her and I know and that was it. So that like really helped me feel comfortable in being able to just say anything."*
	Privacy of Room	Only provider and patient present in the room*: "I feel that it is confidential because when I do go to my appointments, it's just me and her in the room."*
		Dividers: "*There was one time when she had like an assistant come in and first asked me "Is it okay if she scribes?" and I was like "Yeah of course". She even put a curtain to divide, so I didn't even see her, which I also just appreciated, which was really nice."* *"Yes, I definitely do, she always makes sure to keep the door shut."*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Low Quality Confidentiality	Lack of privacy	Physician Assistant: *"Sometimes he does have PAs come in during appointments, so maybe it's not as confidential, but he always asks, "Do you feel comfortable if I bring in the PA students?"and so I have that choice."* --- Family Members: "*Yeah the last time I was there, I went the same time as my Dad cause my Dad was sick, I was just getting a check up, so I went first and I had some questions to talk about in terms of like my period and my sexual health and I didn't really feel comfortable asking with my Dad in the room and I am twenty-two it's not like. But I was kind of frustrated because I was hoping that as the doctor, he would ask like my Dad to leave for a minute, but he didn't…"*

Table 1. Patient Perception on Provider Communication

Theme	Code	Subcategory
Technology	Limits attentiveness	Focus on the patient: *"I guess that little lack of attentiveness in those moments with the technology."* *"…she comes in with a laptop and she's taking notes and I know that it's good for like efficiencies, but I don't like that that's sort of her focus instead of me.* ***Would you prefer if someone else was in the room taking notes and she was just focusing on you or just no notes?*** *In a way, but then I also think that would be weird if someone else was in the corner taking notes. So I think its sort of one of those like necessary things."* --- Eye contact: *"I'd say when she does look at her laptop too long and I'm just like 'Can you, hi? I'm a human. Can you look up at me for a second?' Because you're not really sure if they're like fully listening to what you are saying, so just that part I'd say."* *"I mean she does have her computer out a lot, but she'll make sure to look up and make eye contact with me, which is helpful."* *"I'd say it's just she's pretty conversational, rather than just staring at a clipboard kind of thing. I mean she does have her computer out a lot, but she'll make sure to look up and make eye contact with me, which is helpful."*

*Bold font indicates that interviewer is speaking

Appendix E – RQ2 Themes

Table 2. HPV Vaccine Recommendation

Theme	Code	Subcategory
Benefits	Awareness of benefits	General benefits: "Probably just like the consequences of if I don't get *get vaccinated.* ***Like the negative benefits or what could happen?*** *Yes."* *"Yeah probably. I probably would've done some of my own background research first, but I think if it was something I was aware of that she also recommended I would probably go through with it, especially now knowing what the benefits are."* --- STD/STI prevention: *"I think when I thought I had chlamydia so I went to her just like out of the ordinary and she just wanted to like reassure and just wanted to make sure that it was nothing else so that's when she like brought up the HPV [vaccine] also."* "*I would probably want him to tell me like the benefits of receiving it and I would want him to kind of explain more so like why it is important to get it and talk about, I think I would also just want to have more of a conversation about like STDs and STIs in general, if there is other ways I could be more protected. So yeah that's kind of how I would want it to go."* --- Cervical cancer: *"The only thing I really remember is that getting it had the chance to help prevent cervical cancer down the line and in my family that was definitely a good thing."*

*Bold font indicates that interviewer is speaking

Table 2. HPV Vaccine Recommendation

Theme	Code	Subcategory
Provider Recommendation	Trust in recommendation	Length of relationship: *"I thought that it was helpful because it was something that I was very unsure about, so getting him, a doctor that I'd seen forever like agreeing with it, especially because he was an older doctor so I felt he would be more skeptical of something brand new coming out and that might be like bias but. And then like my mom did the research, so I trusted the two of them.* ***Because they are two people you trust?*** *Yeah."* *"I don't remember exactly what he said to me, but I do know I trust the guy and that he was my physician for like 18 years."* *"****If you didn't get it and your gynecologist recommend it to you, would you get it now?*** *Yeah, but I would probably think about it a little bit more for myself because I think one, I've been seeing my pediatrician for 14 years at the time so I did trust him and his opinions a lot and especially because he was good friends with my Dad and stuff so him telling my parents about it and then being like yes. I just kind of went with it and didn't really think too much of my own. But because one, she was new to my mom because just came to the practice, and she was definitely new to me. I think I probably would've looked into it a little bit more about it for myself, but I ultimately think I would've ended up getting it."* Approach it as a "new shot": *"It was very casual and like it wasn't really like 'Do you want this shot?', it was like 'It's time for this shot."*

*Bold font indicates that interviewer is speaking

Table 2. HPV Vaccine Recommendation

Theme	Code	Subcategory
Provider Recommendation	Trust in recommendation	Strong understanding of process and timeline: *"I think it's like helpful definitely to know like I know she kind of like told me the whole process of like the timeline of like when you had to get each shot by just to make sure like if I'm going to go get a shot like you want to follow up and make sure it's within the right timeline. I think she definitely just like really gave me like information about it and just like the benefits and stuff."* ~~Provide a pamphlet as a 2nd resource:~~ *"**~~Would you want a pamphlet about the vaccine?~~** Yeah, a pamphlet would help. I feel like they make it more simple, like bullet points, easy stuff. **Also it might have pictures too.** Yeah."*

*Bold font indicates that interviewer is speaking

Table 2. HPV Vaccine Recommendation

Theme	Code	Subcategory
Mother/Daughter Relationship	Parental Decision	"*My mom wanted me to have the HPV vaccine before it was available. I have memories of specifically going to my pediatrician as a teen and my mom asking repeatedly on repeated visits, 'Can she get it yet? Can she get it yet?' And it wasn't ready, so I got it right away. So I guess really what I can share, it was something my mom felt really strongly about me getting, so I don't remember having a conversation."* *"I think I was probably 14 when it came up so it was more my doctor telling my parents about it and kind of telling me about it, but I guess if we're being honest it was more my parents telling me I should get it versus me really understanding why I was getting it."* *"I don't really think it was a conversation between me and my doctor. Like I'm sure he asked me if I understood what it was, but it wasn't really like I highly doubt he asked me if I wanted to get the shot. I think it was more my mom wanted me to get the shot."*
	Parental Research	Mom served as key informational source: *"I would probably double check with my mom yeah because she would probably be there. But then, I would probably ask more questions to the doctor."* *"So yeah I think it was mostly my mom and I think she had done the research, she had done enough research to know that is was something she definitely wanted for me and my younger sister…"* Other females as a source of information (i.e. grandma & stepmom): *"Maybe my grandma, she's a nurse, so I feel like she would know and is informative when it comes to healthcare."* *"I would probably just ask my Aunt who is a nurse practitioner just her opinion because she's, I mean she's not like well she's pro-vaccine, but I think I would*

just run it by her. I probably wouldn't just not even bother with my parents because I know my Mom would just be really nervous about it."

Appendix F – RQ3 Themes

Table 3A. Provider Communication on Sexual Health

Theme	Code	Subcategory
Communication Style	Language	Fluency: *"Almost all my patients here in Winchester have pretty good health literacy, that is they understand a fair amount about their sexual health, STD risk, and are pretty well apprised to HPV risk and almost all of them are vaccinated."*
	Asks questions	General to specific: *'I always start with "Is this your birth date?', 'Is this your name', general questions, that gives a chance to start the rapport there and then from there I say, "What brings you in today?" And so they may not bring up the sexual health things right away, and that's okay if they bring up something else we'll address that…"*
		Use questions to ease into conversation*: "…I try to read body language too and can tell if somebody is uncomfortable and that's when I kind of ease into conversations a little bit more. I'm going to ask the same questions, but I might ask them in a different way…"*
	Shares expertise	Honesty: *"I try to convey that I'm a safe place, you can talk to me, and also I have a lot of the answers and I am very upfront if I don't have the answers, "I'm not sure about that, but I'm going to try and find out for you". But I think just conveying both a level of comfort and safety in the conversation, but also a level of expertise so they know the person they're talking to knows what to do."*
Partnership	Power to the patient	Accepting: *"So I think the most important thing is however I phrase things it's in a way that there's no judgement, where it's clear that I talk about these things all the time, and that I'm comfortable with it. Because I think showing that I'm comfortable helps them feel more comfortable."*

"The most important thing is developing a rapport and comfort level because I want them to feel comfortable, they can tell me anything, it's not going to leave that room, I'm not going to judge you, they can tell me anything."

Table 3A. Provider Communication on Sexual Health

Theme	Code	Subcategory
Partnership	Power to the patient	Follows patient lead: *"Generally, either way, I try to follow the lead and also I try to approach things in a way, because the most important thing is to develop like a comfort level because you want the patient to feel comfortable being able to disclose things they might not feel that great talking about with someone they don't know or they might feel embarrassed."* *"I'm pretty direct to start the conversation with "Okay, why are you here today?" so then they can tell me in their language why they are here and then I just follow that lead and then we get into the sexual health questions, which there are certain ones I touch base on."*
Medical Communication	Technical	*"…it can cause inflammation of the cervix and sometimes changes in the cervix, which can leads towards abnormal pap smears that are on the road to cervical cancer."*
	Info Sheet	*"If a woman has more questions, I can give them the HPV vaccine info sheet and then the nurse always gives HPV vaccine info vaccine sheet when they give the HPV vaccine."*

Table 3A. Provider Communication on Sexual Health

Theme	Code	Subcategory
Confidentiality	Translator is not a family member	*"…if I have a patient who is speaking another language usually I'll have translations. Now ideally that translation is with someone who is not a family member, so the patient feels perfectly comfortable talking about delicate sexual issues or STD risk."* *"Well I'll always try to speak with the woman in her native language and if we need a translator have someone that is objective and not a member of the family so that she can have a complete confidentiality."*
	Only patient is in the room	*"For young women and older teenagers, I like to speak with them alone and not with a parent or other family members in the room. And often it's a good idea, some of the patients will come with their partner or boyfriend or husband, and I'll always try to speak with the patient alone, just if there's personal issues she wants to bring up without the partner there, including domestic violence."*
	Explicit confidentiality	Clarifies that it is a safe space: *"I try to convey that I'm a safe place, you can talk to me"* *"That's a big thing that we're working on is to try to make this a safe zone where people know that this is separate from the university. Yes we are here on campus, we're a part of the university, but what you come and discuss here is not going to leave here and I feel that some students are not sure that it is going to be kept separate."*

Table 3A. Provider Communication on Sexual Health

Theme	Code	Subcategory
Confidentiality	Privacy from parents	Insurance: *"If the parent finds out via the insurance, then that would be a bit of an issue."* *"The thing with the parents is a little trickier because if the parents are the subscribers to the insurance, though I believe, I don't believe if it's law or not, but I believe counseling for birth control or counseling for STI screening is not supposed to be showing up on explanation of benefits that goes home to the subscriber. I can never guarantee that it is going to and that I think across the board in college health is an issue and not just in college health but in adolescent health."*
	Recognize barriers	*"I think it's when students or patients have a hard time disclosing all of the information, which I don't necessarily know if they are or not, but I can imagine that's a barrier, because when we talk about number of partners or gender of partners or those sort of things, they might not feel like they are comfortable enough with me yet to disclose everything and they may just tell me pieces of it that they feel are necessary. So there may be other additional pieces that may change my recommendation but they are not being disclosed."* *"…or that they're like "I don't want to talk to those old ladies at Health Services."*

Table 3B. Provider Communication on the HPV Vaccine

Theme	Code	Subcategory
Benefits	Prevention of abnormal pap smear	"*Some young woman or any patients are just not keen on shots, but I try to impress on them that it is definitely worth it and will save them a lot of headache down the road with abnormal pap smears and could possibly prevent cancer.*"
	General benefits	*"…And then I also do sometimes talk about how the HPV strains that cause cancer are different than the HPV strains that cause genital warts and so we talk about that sometimes as well."* *"It'll also prevent genital warts, warts on the outside or inside of a woman's vagina."*
	Cervical Cancer	*"…but the biggest thing is cervical cancer prevention."* *"…it's just like when I talk about pap smears and I talk about how this is a cancer screening, I talk about HPV as cancer prevention."*
	STI Prevention	*"I try to exclusively talk about STD risk as well as various options for birth control and any other concerns about her sexual health."*

Table 3B. Provider Communication on the HPV Vaccine

Theme	Code	Subcategory
Parental Role	Parent doesn't want child to be sexually active	"*For younger women, 11, 12, 13 year old girl, sometimes the parent says, "Well you know my child is not going to be sexually active anytime soon," but I often encourage the parent to dive right in while they are young teenagers to prevent what happens when they are in their 20s, so really some occasional parental barrier is the main issue, but not much of a barrier for the woman age 18-26."* *"And then I think a barrier, and again this is more for parents, is that they don't want to acknowledge the sexual component of it, especially in their eleven or twelve-year-old child."*
	Marketed towards parent and child	"*I kind of got this idea from the commercials for the HPV vaccine because the way that they decided to try and market this so that more young adults and their parents, generally because the parents are a lot of times making the decision for the eleven and twelve year old or the seventeen year old a lot of times are making those decisions."*

Table 3B. Provider Communication on the HPV Vaccine

Theme	Code	Subcategory
Recommendation *haven't*	Vaccine in records	*"When I glance through their patient record, I will try to bring it up if they yet had it yet had their HPV series. But happily most of my patients have already gotten it as a younger teenager."*
		"One other barrier, and this is something I'm just thinking of now, is that in our incoming paperwork for students they submit their required vaccines, often the recommended vaccines are on there too, we don't necessarily input the recommended vaccines, so we might not have clear documentation of whether or not a student has gotten it. So that's something we should think about, any vaccines that are presented to us, we should just enter them in the system. We still have the documentation, but it is not right in our face like it is if we're inputting the dates, which we only input for those required vaccines."
	Show data on the success of the vaccine	*"But interestingly, in Australia, I read an article about it recently, it's a required vaccine, you may want to check the source of that because it's something I just saw. But they have made the vaccine required and they are anticipating to have essentially like no cervical cancer by the year 202-something. That is something that after I fact check it again and make sure it's coming from a good source, that's probably something I would use in my conversations too to show "Look they've been using it there, it's now required, and look at the results." because you're giving them data and I think data speaks for itself."*
	Push if you have HPV high risk	*"I think my biggest push of emphasis is if the woman gets HPV, especially a high risk HPV…"*

Table 3B. Provider Communication on the HPV Vaccine

Theme	Code	Subcategory
Safety of vaccine	Patient does not like shots	*"Some young woman or any patients are just not keen on shots, but I try to impress on them that it is definitely worth it."*
Misconception	Recommended, not required:	*"…there's misconceptions about the safety of the vaccine. And the HPV vaccine because it's not a required vaccine, people are like 'Well why would I get an additional something injected into my body. It has not been around long enough. It's not safe."*

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