Use of motivational interviewing to address HPV vaccine hesitancy

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The human papilloma virus (HPV) is the leading cause of cervical cancer along with a major factor in vulvar, penile, anal, and oropharyngeal cancers. The development of the HPV vaccine has reduced the rates of these cancers. However, rates of HPV vaccination among women and men remain low, due to both low provider recommendations and patient or parental vaccine hesitancy. In addition to providing quality provider recommendations, motivational interviewing (MI), a communication strategy used to assist in behavior change, can be utilized in the context of vaccine hesitancy with the goal of increasing HPV vaccination rates.

Case report

AJ is a 41-year-old patient presenting for her well-woman exam. She has no specific complaints today but has questions related to her 15-year-old daughter. She has concerns about the HPV vaccine. She reports she took her daughter to a pediatric appointment during which the provider recommended the vaccine without explanation. She is uncertain why it is necessary.

HPV is a sexually transmitted virus that is associated with multiple types of cancer, including cervical, vulvar, penile, anal, and oropharyngeal cancers, as well as genital warts.[1,2] Approximately 85% of those who are sexually active will contract HPV in their lifetime.[2] The HPV vaccine acts as primary prevention to cervical dysplasia and cervical cancer, as well as the other types of cancers previously listed.[1,2] The vaccine became widely available in 2006 and protects against the highest risk strains of HPV. Vaccination has resulted in an 86% reduction in vaccine-specific HPV in women age 14 to 19 years since starting HPV vaccination.[1,2] Among adult women, high-risk HPV rates have dropped by 40%. The HPV vaccine is 99% effective in the context of no prior HPV exposure.[2] The vaccination goal of the Centers for Disease Control and Infection is 80% of the target

age range, which they state could lead to a reduction of 53,000 cervical cancers in those younger than age 12 years.[2]

Recommendations related to the HPV vaccine have expanded in recent years. For a full list, see *Box 1*. The recommendations are to give the vaccine at ages 11 to 12, with catch-up vaccination appropriate up to age 45 for both men and women.[1,2]

When providing vaccine counseling, guidelines advise delivering strong, clear recommendations to vaccinate children at the recommended age of 11 to 12 years.[3] Including the HPV vaccine in the normal vaccination schedule for pediatric care, rather than as optional, increases HPV vaccination rates.[3] Strong, clear recommendations for vaccinating also are useful for catching up vaccinations either among adolescents or adult patients.[3] There will always be a contingent of patients, however, who are hesitant about the HPV vaccine. Multiple factors affect vaccine hesitancy, but these can include medical mistrust and misinformation about the vaccine.[3]

As vaccine hesitancy among parents in pediatric practice has risen, research has begun to explore the use of motivational interviewing (MI) in the context of addressing concerns related to vaccination.[4] Vaccine hesitancy can cause providers to feel frustrated and ill equipped to continue these important conversations. The use of MI has been explored to help instill providers with a renewed sense of empathy and curiosity toward patients' and parents' vaccine concerns. The literature illustrates that vaccination rates, including HPV vaccination rates, increase in the context of MI use to address vaccine concerns.[4]

Box 1. HPV vaccine administration recommendations[2]

- Age 11 to 12 years: ideal time, 2 doses 6–12 months apart
- Age 13 to 26 years: catch-up period, 3 doses after age 15 years required, 0, 1–2 months, and 6 months
- Age 27 to 45 years: shared decision making based on risk for future HPV infection
- Can administer HPV vaccine as early as age 9 years, which would be appropriate in the context of childhood sexual abuse

Empathy foundational to motivational interviewing

Motivational interviewing is a communication strategy used to help individuals engage with behavior change. Developed in the 1980s by Stephen Rollnick and William Miller, MI is built on empathetic and skillful listening to elicit a person's internal thoughts, feelings, motivations, and concerns.[5,6] It includes a foundational belief that motivation and a sense of wellness itself cannot be instilled in someone else. Rather, individuals have intrinsic motivation and sense of wellness that is unique to them.[5,6] The use of MI aims to explore and empower these internal motivations to help individuals move toward behavior change. Since its inception, countless studies have illustrated success in using MI to help patients achieve healthy behavioral change including reducing smoking, improving diet and exercise, and improving adherence to chronic illness management.[5,6]

The foundation of all MI techniques is the embodiment of an "empathic presence." The empathic presence is the culmination of, first, feeling empathy, and second, expressing and communicating that empathy.[5,6] On a basic level, empathy is the ability to understand and share one's feelings. Empathy is a practice rather than a static skill, as the ability to feel empathy can vary depending on with whom one is trying to relate.[5,6] Typically, it is easier to feel empathy for those with shared backgrounds as compared to those who are different from oneself. Thus, the practice of empathy must grow and strengthen to maximize connectedness with others.[5,6]

William Miller, one of the creators of MI, has coined a term "accurate empathy" to further explain the type of empathy that is needed to effectively practice MI.[7] Accurate empathy is correctly understanding what a person feels, thinks, and experiences. Accuracy is important because often empathy can be confused with assuming another person's feelings, when that assumption relies on how the provider may expect to feel in a similar situation.[7] It is crucial to recognize that what the speaker says and what the listener hears does not necessarily have the same meaning. The ability to correctly hear and understand the speaker is a cornerstone of accurate empathy.[7]

The practice and growth of accurate empathy is a requirement of all MI techniques. The foundation of MI is practicing empathy, while the strategies of MI are communicating empathy.[6] Prior to engaging with these strategies, it is helpful to take a moment to assess:

- What your practice of empathy looks like.
- Whether empathy comes easily to you or is something that takes work on your part.
- If there are encounters in which

Box 2. Verbalizing empathy[5,6]

- Normalizing: it is normal to feel unsure about the HPV vaccine given what you've heard about it.
- Acknowledging feelings: it sounds like you are nervous or uncertain about if the HPV vaccine is right for you.
- Affirming strengths: I'm so impressed with your interest in gaining as much information as possible prior to making your decision.
- Nonjudgment: Whatever your decision, I am not judging you.

you empathize easily and encounters in which you have more difficulty empathizing.

As the practice of accurate empathy grows, MI techniques may be utilized to communicate that empathy to patients. There are strategies that communicate empathy in any encounter. First, nonverbal empathy strategies include eye contact, smiling, handshaking when appropriate, and mirroring posture and expression.[6] Nonverbal empathy sets the stage for the verbal communication that follows, allowing a patient to feel at ease in the clinical encounter.

Verbalizing empathy

In addition to nonverbal empathy strategies, verbalizing empathy is vital to basic MI practice, especially in the context of vaccine hesitancy (*Box 2*).[6] These strategies are widely applicable in a variety of encounters including both in-person visits and telehealth visits. The first verbal empathy strategy is to acknowledge and normalize the patient's feelings or experience.[3,6] In the context of patient AJ, an appropriate response may be: "It sounds like you are uncertain about whether the HPV vaccine is the right choice for your daughter. This is a common concern, as there is a lot of misinformation that can make the decision more difficult."

By acknowledging and normalizing this experience, it tells AJ that she is not being judged for her concern and that this encounter is an appropriate place to ask additional questions. Another powerful MI strategy is called "affirming strengths." In any situation, a person has positive traits, experiences, or successes.[6] Calling attention to these traits can build confidence in one's own decision making. AJ describes her concern about the safety of the vaccine. She says, "I hear so much conflicting information and I don't want to do anything that might harm my daughter." An example of affirming strengths would be to respond: "AJ, I am impressed with your thoughtfulness when making this decision. You clearly care about your daughter's health and are wanting to weigh all the information to make the best decision for her." Acknowledging AJ's strengths as a mother lets her know that she is recognized as an empowered decision maker. This may make her more open minded to information provided about the vaccine.

Continuing the conversation

On creating a comfortable rapport with the patient, it is important to gain insight into the patient's concerns and motivations. AJ expressed concerns about the vaccine's safety, but she did not initially elaborate. The use of open-ended questions is a reliable way to gain more information from the patient in a nonjudgmental way.[6] However, it is important to avoid "why" questions because these can convey judgment and disagreement.[6] An example of this type of question is: "Why are you concerned?" Good examples of open-ended questions/comments include: "What concerns do you have related to the vaccine?" and "What have you heard related to the HPV vaccine?" or "Tell me more about your concerns."

Once AJ can discuss specific concerns about the vaccine, reflecting her response back to her can help ensure that what was heard is what she meant. Reflecting illustrates active listening and will confirm a shared understanding of what she meant.[6] Successful reflective listen-

ing can act as a question to which, on reflection, AJ may say "yes and…" provide additional information.

The use of these strategies (nonverbal and verbal empathy, open-ended questions, and reflective listening) used together creates the foundation for a successful beginner MI encounter. The provider–patient rapport will be strengthened and the opportunity to counsel toward behavior change, such as acceptance of a vaccine, will increase.

In addition to these strategies, it is also important to have strategies to address ambivalence and misinformation. "Rolling with resistance" is a strategy rooted in the idea that an MI practitioner wants to avoid confrontation.[6] A patient may express hesitancy and even report misinformation. Rather than immediately correcting the patient, or confronting them about their hesitancy, it is important to acknowledge their concern. Immediately correcting or confronting can create a barrier to the open communication that has been building throughout the encounter. Instead, it is helpful to express empathy and reflect, which can then be followed by appropriate and desired counseling.[6]

After rolling with resistance, the next step is to ask permission to share information. This can often feel counterintuitive, as the role of nurse practitioners (NPs) is often to provide information.[6] Asking permission allows the patient to opt into or out of counseling. This avoids lecturing, which can again break down open communication. AJ says, "anyway, I recently read that cervical cancer rates are going down so why does my daughter even need the vaccine?" The NP might respond: For example, "I hear you say that you are concerned that the HPV vaccine is not necessary because rates of cervical cancer are low. I hear this a lot from my patients. Is it okay if I provide some information regarding the efficacy of the vaccine in preventing cervical cancer and its safety, so that you may best make your decision?"

At this point, AJ may say yes and be ready to discuss the accurate information about the vaccine. If she says no, then the door may still be open to future conversations. With an encounter using MI, AJ may accept that this is a comfortable and nonjudgmental space to which she can bring her concerns. Next time she comes to the clinic, she may be ready to receive the correct information about the HPV vaccine. In response to AJ declining additional counseling, the NP might say: "If you ever do have questions or want clarification, I would always be happy to discuss the topic further with you."

If AJ does want additional information, it is important to provide directed counseling related to the patient's vaccine concerns. Addressing the patient's specific concerns and then asking the patient if they have other questions can help maximize patient understanding.

For a list of these MI strategies, see *Box 3*.

Box 3. Other MI strategies[5,6]

- Open-ended questions
  - Tell me more about your concerns
  - Avoid "why"–it can convey judgment
- Reflective listening
- Rolling with resistance
- Ask permission to share information

Directed counseling

Addressing common misconceptions and questions is vital to completing an MI encounter to respond to vaccine hesitancy. Here are common misconceptions about the HPV vaccine, followed by the accurate information that can be provided to the patient:

- Rates of cervical cancer are low, so the vaccine is unnecessary.
  - The rates of cervical cancer have been significantly decreased by primary prevention with use of the HPV vaccine and early detection of precancer with pap tests. Thus, cervical cancer rates are low because of the combination of increased vaccination against HPV and regular pap tests.[8]
- Isn't the HPV vaccine new? Should I wait to receive my vaccine or to have my child vaccinated?
  - The HPV vaccine has been available since 2006, prior to which clinical trials were conducted showing it is safe and effective. Since 2006, research has continued, and more than 3 million participants have illustrated the ongoing safety and effectiveness of the vaccine.[8]
- If we have pap tests, why do we need the vaccine?
  - A pap test, in itself, does not prevent cervical cancer but allows for detection of early changes to the cervix like precancer so these can be treated before becoming cancer. The pap test does not identify HPV-related vulvar, penile, anal, or oropharyngeal cancer or precancer. The HPV vaccine prevents infection with the more dangerous strains of HPV, which cause anogenital and oropharyngeal cancer and precancer, so that these do not occur at all.[8]
- Isn't age 11 young to vaccinate against HPV? My child is not sexually active.
  - The most effective time to vaccinate against HPV is before engaging in any sexual activity. Most 11- and 12-year-old chil-

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dren are not sexually active. Additionally, clinical trials show that receiving the HPV vaccine at this younger age results in a stronger immune response. Thus, vaccinating at this age provides the most effective rates of prevention.[8]

- Vaccinating against HPV means my child will be more likely to engage in sexual activity as an adolescent.
  - Many studies have been conducted that illustrate adolescents who have received the HPV vaccine are no more likely to engage in sexual behavior than those who have not.[8]
- The HPV vaccine is optional or not as important as other vaccines.
  - Many types of childhood vaccinations prevent acute illnesses that are highly contagious or result in severe outcomes. The HPV vaccine prevents cancer. Although it is different from other vaccines, preventing cancer is always important.[8]
- The HPV vaccine is for girls and women only.
  - The HPV vaccine is recommended for boys as well as girls. The HPV vaccine reduces risk of genital warts, penile, anal, and oropharyngeal cancers in boys and men as well as reduces rates of transmission to others.[8]

Implications for practice

Increasing the rate of HPV vaccination is crucial to the continued goal of reducing rates of morbidity and mortality related to HPV. In a time when parental vaccine hesitancy in pediatric spaces continues to occur, it is important that NPs have a tool kit for continuing the conversation in both an empathetic and informative way. Motivational interviewing is an evidence-based approach that can be seamlessly implemented into practice to continue to engage parents and patients in conversation and consideration, with the goal of continuing to increase HPV vaccination rates among pediatric and adult populations. ■

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