Published in final edited form as:

Health Commun. 2018 September ; 33(9): 1177–1183. doi:10.1080/10410236.2017.1339379.

Adolescent Experiences of Clinician–Patient HIV/STI Communication in Primary Care

David Cordova, Ph.D[1], **Frania Mendoza Lua, MSW**[1], **Lauretta Ovadje, Ph.D**[1], **Kathryn Fessler, MD, Ph.D**[2], **José A. Bauermeister, Ph.D**[3], **Christopher P. Salas-Wright, Ph.D**[4], **Michael G. Vaughn, Ph.D**[5], and **Youth Leadership Council**[2]

[1]University of Michigan, School of Social Work

[2]University of Michigan, The Corner Health Center

[3]University of Pennsylvania, School of Nursing

[4]Boston University, School of Social Work

[5]Saint Louis University, School of Social Work

Abstract

Effective clinician–patient communication is linked to positive patient health outcomes in adults, yet the research on adolescent populations remains limited. We describe adolescent experiences of clinician–patient HIV/STI communication through qualitative interviews with predominantly African American adolescent women from a youth-centered primary care clinic. Participants described acknowledging clinicians are professionals, the importance of confidentiality to foster clinician–adolescent communication, and calling for clinician-initiated HIV/STI communication. Adolescents expressed the necessity for clinicians to engage youth in these challenging conversations through an open and understanding approach. Additionally, adolescents described experiences of perceived judgment and uncomfortableness from clinicians, and non-disclosure of HIV/STI behaviors to their clinician. Findings underscore the adolescents' desire to engage in HIV/STI communication with healthcare providers, while highlighting important strategies for clinicians. Results can inform health communication research and practice, and the development of interventions aimed at increasing clinician–adolescent HIV/STI communication.

Keywords

HIV/STI; adolescents; clinician–patient communication; health disparities; prevention

---

The prevention of human immunodeficiency virus (HIV) and sexually transmitted infections (STI) in youth remain public health priorities in the United States (U.S. Preventive Services Task Force, 2015). Nearly three decades since the first reported cases of HIV in the US, there are approximately 1.2 million people aged 13 years and older living with HIV (Centers for Disease Control and Prevention [CDC], 2012). In addition to HIV infection, nearly 20 million people in the US report a STI each year (CDC, 2014). Adolescents disproportionately engage in drug use and sexual risk behaviors (Johnston, O'Malley, Miech, Bachman, & Schulenberg, 2016; Kann et al., 2016), which increase their vulnerability to STI and HIV infection (Córdova et al., 2014; Córdova, Huang, Lally, Estrada, & Prado, 2014). In fact, 50% of new STI and 25% of new HIV infections each year occur in young people aged 13–24 years (CDC, 2012, 2014). Effective clinician-patient communication may ameliorate HIV/STI disparities among adolescents.

Broadly defined, clinician–patient communication is the process by which the exchange of information occurs between the clinician and the patient in a trustworthy and reciprocal manner (Duggan, 2006). Effective clinician–patient communication is both central and salient to fostering the clinician–patient relationship, which, in turn, influences favorable patient health outcomes (Ha & Longnecker, 2010; Teutsch, 2003). Evidence supports the role of clinician–patient communication in shaping health outcomes among adult populations (Beach et al., 2015; Haskard et al., 2009; Ray et al., 2013), yet the research on clinician–patient communication in adolescents remains limited (Klein & Wilson, 2002; Schuster, Bell, Petersen & Kanouse, 1996).

Effective clinician-adolescent communication is linked to decreased repeat pregnancies (Carvajal, Buerrell, Duggan, & Barnet, 2012), increased HIV/STI testing (Goyal et al., 2013, Tolou-Shams et al., 2007), and uptake of the human papilloma virus vaccine (Moss, Reiter, Rimer & Brewer, 2016). Relatively less is known with respect to the effects of clinician–adolescent communication on HIV/STI risk behaviors among adolescents (Arya et al., 2014; Fuzzell, Fedesco, Alexander, Fortenberry, & Shields, 2016; Ham & Allen, 2012).

In the limited yet growing body of literature, evidence suggests that effective clinician–adolescent communication may ameliorate HIV/STI risk behaviors (Boekeloo et al.,1999; Clawson, Robinson, & Ali, 2016; Hum et al., 2011). For example, effective clinician–adolescent HIV/STI communication during primary care visits was linked to increased condom use among African American adolescents (Boekeloo et al., 1999). Unfortunately, clinician–adolescent HIV/STI communication is often brief or non-existent (Alexander et al., 2014; Fuzzell et al., 2016). In fact, clinician–adolescent HIV/STI communication on average lasts 40 seconds or less in duration (Alexander et al., 2014). Although clinicians report comfort with taking sexual history, many report discomfort and lack of confidence in HIV/STI communication (Shindel et al., 2010). Furthermore, less than one third of clinicians believe they are effective at reducing adolescent sexual risk behaviors (Henry-Reid et al., 2010).

Although the aforementioned research has addressed clinicians' experiences, a gap in the literature persists with respect to adolescents' experiences of clinician–patient HIV/STI communication. Developmental aspects, including developmentally appropriate communication and understanding the role of parents and confidentiality, may be more relevant among youth when compared to adults (Ham & Allen, 2012). Indeed, adolescence is a developmental period during which health risk behaviors are shaped by unique developmental determinants that may influence clinician–patient HIV/STI communication (Institute of Medicine and National Research Council, 2011). Youths' desire to engage in HIV/STI communication with their providers may be hindered by effective clinician–adolescent communication challenges (Tates & Meeuwesen, 2001), including limited opportunities to engage in these conversations (Fuzzell et al., 2016; Schuster et al., 1996), failure of clinicians to communicate directly with youths about their risk behaviors, and lack of space for youth-directed clinic visits. In spite of these findings, a recent review of the clinician–patient communication literature identified several important gaps, including the need for qualitative research aimed at developing a fuller understating of adolescent patients' subjective experiences (Ha & Longnecker, 2010).

Ecodevelopmental and Interpersonal Communication Theory

Ecodevelopmenntal theory (Szapocznik & Coatsworth, 1999) is a risk and promotive factors heuristic model that posits adolescents are embedded in multiple systems that both influence and are influenced by the individual over time. From proximal to distal, these systems include the micro, meso, exo, and mactosystem. Several tenets of ecodevelopmental theory (Szapocznik & Coatsworth, 1999) guide the study design in the present study. First, ecodevelopmental theory affirms that youth are embedded in integrated ecological systems, including primary care. This is relevant to the present study design, as adolescents may begin to spend more time in the primary care system seeking HIV/STI prevention services, relative to younger age groups (U.S. Preventive Services Task Force, 2015). Given that relatively little research has been conducted on clinician-adolescent HIV/STI communication in primary care, a qualitative design aimed at developing a fuller understanding of adolescent experiences in the primary care system is warranted. That is, a qualitative design may derive testable hypotheses for future quantitative research. Second, the ecodevelopmental framework incorporates developmental and social interaction theories (Szapocznik & Coatsworth, 1999). Therefore, our research design was developed to target adolescence, a developmental period characterized by increased vulnerability for engaging in HIV/STI risk behaviors (Johnston, et al., 2016; Kann et al., 2016). Furthermore, clinician–patient communication should be understood from a social interaction perspective such that both the clinician and the adolescent influence and are influenced by each other in a reciprocal manner over time. Given that considerably more research has focused on clinician experiences of HIV/STI communication (Shindel et al., 2010), a research design focused on adolescent experiences is needed (Ha & Longnecker, 2010). Ecodevelopmental theory has been applied to develop a fuller understanding of how parent–adolescent communication shapes HIV/STI risk behaviors (Córdova, Huang, Pantin, & Prado, 2012). The theory may also have great utility for developing a fuller understanding of clinician–adolescent HIV/STI communication, yet research remains limited (Córdova et al., 2015; Córdova et al., 2016). Furthermore, social interaction theory affirms that clinician–adolescent communication does not happen in isolation, but rather occurs in a dynamic and reciprocal manner; therefore, incorporating aspects of interpersonal communication processes into an ecodevelopmental framework may be helpful.

Interpersonal communication is an essential and distinct aspect of health communication (Duggan, 2006). From this perspective, interpersonal communication processes are concerned with the identification of information giving, interpersonal sensitivity, and partnership building as core communication skills that shape patient outcomes (Duggan, 2006; Ong, de Haes, Hoos, & Lammes, 1995). Clinician expressions of empathy, concern, or altruism are often linked with improved communication quality and health outcomes (Cooper-Patrick et al., 1999; Duggan, 2006). Interpersonal communication affirms the need to provide patients with opportunities to lead their health visits based on topics of interest to them, and to provide clinicians with opportunities to share information based on their domain of expertise.

The Present Study

Given the limitations of existing literature, the purpose of this study was to conduct qualitative interviews with adolescents to gather in-depth data to answer the overarching research question: What are the experiences of adolescents related to clinician–patient HIV/STI communication in a youth-centered primary care clinic?

Methods

Data are from a larger study focused on the development and examination of a mobile-health HIV/STI and drug abuse preventive intervention (Córdova et al., 2015; Córdova et al., 2016). Data collection occurred between December 2013 and October 2014, and was approved by the University of Michigan’s Institutional Review Board.

Participants

Guided by the principles of community-based participatory research (Wallerstein & Duran, 2006), a purposive sample of 29 adolescents was recruited via face-to-face distribution of fliers, word of mouth, and snowball methods from a youth-centered community health clinic located in Southeast Michigan. To be eligible, participants had to be between the ages of 13–18, provide parental consent and assent (< 18 years of age) or consent (≥ 18 years of age), and be a patient of the participating clinic. Adolescents were primarily African American (n = 19, 65.5%) and female (n = 21, 72.4%), with a mean age of 16.23 years (SD = 2.09). Participants received a $20 incentive to help defray the cost of their time and transportation.

Procedures

Potential participants were recruited from the clinic waiting room. An initial list of potential participants was created, and research staff called youth to describe the study in detail and schedule the interview. All interviews took place in a private room located at the clinic.

We conducted a total of 9 focus group and 4 individual interviews. The purpose of conducting both focus group and individual interviews was two-fold: first, focus group interviews may empower vulnerable populations as a result of group processes that allow for shared experiences among participants, as well as yield data that may not be obtained solely through individual interviews (Robinson, 1999). Second, a limitation to focus group interviews is that researchers cannot ensure confidentiality because of the presence of other research participants. Therefore, individual interviews were conducted to provide an outlet for participants to share their experiences related to clinician–adolescent HIV/STI communication. Following the recommendations of Krueger and Casey (2014), we first conducted three focus group and two individual interviews, and conducted preliminary analysis across the interviews to examine whether we reached saturation. Although preliminary analysis indicated that saturation—defined as the point at which no new information or themes related to HIV/STI communication were identified in the data (Bowen, 2008)—was reached, we conducted one additional focus group and two individual interviews. Investigators have reported saturation with three focus group (Krueger & Casey, 2014) and 4–6 individual interviews (Córdova et al., 2015; Guest, Bunce, & Johnson, 2006). Among the 29 participants, 25 participated in focus group interviews that ranged in size from 2–6 participants, and 4 participated in individual interviews.

The interview guide consisted of open-ended questions aimed at minimizing questioning bias and privileging participants' voices, such as: "What do you find helpful in talking with your primary care physician about drug use and sexual risk behaviors?" and "What do you find challenging in talking with your primary care physician about drug use and sexual risk behaviors?" Probes followed the questions. Examples of probes included: "What does your doctor do that you find it easier to talk with him or her?" and "What characteristics does your doctor have that you find it challenging to talk with him or her?" The interview guide was gradually modified to include probes for themes that participants identified as relevant that were not included in the original interview guide. Each interview was digitally audio recorded and lasted 45–75 minutes.

Analytic Approach

The audio recordings of each interview were transcribed verbatim by research assistants, and checked for accuracy by a different research team member. Data were uploaded to NVivo10 (QSR International, 1999–2014) for storage, organization, and analysis. Data analysis followed the inductive process of content analysis (Kelly 2009; Vaismoradi, Turunen, & Bondas, 2013). First, the research team developed a coding manual to identify themes in the data. Second, two research team members coded each interview independently and met to discuss the identified codes. Any discrepancies in the codes were discussed until consensus was reached.

We established trustworthiness of data following the guidelines recommended by Morrow (2005). Specifically, peer debriefing was employed at the completion of each interview as well as during the coding process. Then, journaling was implemented to document research decision-making processes and potential research bias. Finally, the collection of data occurred over an eleven-month period, which allowed for informal visits and engagement of clinic staff, administration, and potential participants (Morrow, 2005). Researchers affirm that prolonged engagement with participants may enhance credibility—the notion of internal consistency within a qualitative context—thereby ensuring rigor in the research process (Morrow, 2005).

Results

The analytic process led to the identification of three themes with respect to clinician–adolescent HIV/STI communication. Theme 1, adolescents perceive clinicians as judgmental and uncomfortable, is characterized by two subthemes: (a) adolescent experiences of perceived judgment from clinicians, and (b) clinicians' perceived discomfort with HIV/STI risk discussions. Theme 2, confidentiality and adolescents' non-disclosure in clinician–patient HIV/STI communication, is also characterized by two subthemes: (a) confidentiality is essential to foster clinician–adolescent communication, and (b) adolescents do not always disclose HIV/STI risk behaviors. Finally, the third theme, the role of professionalism, personalism, and clinician-initiated conversations in clinician–adolescent HIV/STI communication, consists of three subthemes: (a) adolescents acknowledging clinicians are professionals, (b) clinicians developing personalism to open avenues for HIV/STI communication, and (c) adolescents calling for clinician-initiated HIV/STI communication.

Adolescents Perceive Clinicians as Judgmental and Uncomfortable

Adolescent experiences of perceived judgment from clinicians—Adolescents reflected on the ways in which they experienced perceived judgment from clinicians and how this creates reluctance to disclose HIV/STI risk behaviors. For example, one youth mentioned:

> Who likes to just go to somebody and say, “I’m on drugs.” That’s something you don’t talk about to certain people. So, why would I tell a doctor if they are going to look down on me or something? Like, make me feel worse about doing it. (Female, 16–18)

Similarly, another adolescent expressed:

> I think maybe they [youth] might feel like they [clinicians] might judge them because not every doctor has really good bedside manner. I would think that it would also depend on the doctor too because you may have ones that are kind of preachy and talking at you, not talking to you. So, some teens may not feel comfortable about that. (Female, 13–15)

Adolescents shared the experience of perceived judgment particularly when obtaining STI test results. One participant stated,

> Like, if your test results came back positive for gonorrhea or something, and as your doctor is describing it to you, they [the clinician] have like this disgusted look on their face, then that’s challenging for a lot of teens that I know. (Female, 15)

Clinicians are perceived to be uncomfortable with HIV/STI risk discussions— Adolescents shared their perspectives as to why clinicians do not initiate conversations about HIV/STI risk behaviors. Specifically, adolescents perceived clinicians to be uncomfortable with engaging in HIV/STI communication. One adolescent mentioned:

> …It comes to the point where they have to ask you, “Are you having sex?” Some of them [clinicians] don’t feel comfortable asking those questions because they’re like, “It’s a kid here. I’m asking this kid.” And it’s kind of weird for them. (Female, 13–15)

Participants described the reciprocal nature of both youth and clinicians “holding back” with respect to HIV/STI communication as a result of feelings of discomfort. One youth mentioned:

> There is a fear of how they would think or feel about. You know what I’m saying? But you know you might holdback but some doctors might hold back their like [reaction], or feelings [uncomfortable] or opinions about stuff. Cause they don’t

> want to hurt your feelings but I don't know. It all depends on the doctor. (Female, 15)

Participants expressed the need for additional training as one potential solution to ameliorate clinicians being uncomfortable with HIV/STI risk communication and learning how to handle these conversations. One adolescent stated:

> I think maybe if I don't really want to exclude some doctors…but I think maybe like a training or something to handle those situations might help a little bit, so they can know how to deal with that and how to come about those problems. (Female, 15)

Confidentiality and Adolescents' Non-Disclosure in Clinician–Patient HIV/STI Communication

Confidentiality is essential to foster clinician–adolescent communication—Participants highlighted the necessity for clinicians to maintain confidentiality with respect to their HIV/STI risk behaviors. Adolescents were particularly concerned about disclosing HIV/STI risk behaviors to their clinicians because clinicians could, in turn, inform the adolescents' parents. One participant shared, "I think a lot of kids would feel safer and better if they're talking to a doctor, knowing that it's confidential and that it won't be told to their parents" (Female, 18).

Similarly, another adolescent mentioned:

> It's nice to have the medical perspective…I think it's helpful, smart, logical. There isn't any reason not to do it [disclose HIV/STI risk behaviors]. Unless you're embarrassed of course. If you're with a clinician, patient confidentiality [is important]. (Female, 16–18)

Adolescents do not always disclose HIV/STI risk behaviors—Participants shared how they experienced regret as a result of non-disclosure of HIV/STI risk behaviors. One participant expressed:

> I don't know about everybody else, but when I go to the doctor and when they ask you, "Do you smoke? When was the last time you had sex?" You are like, "Should I answer that?" But then sometimes you'll be like, "Man, I should have answered that question because maybe what if something happened, you know?" You wish you would have answered the question. (Female, 16–18)

Another youth described the process of deciding whether to disclose HIV/STI risk behaviors to their clinician:

> If you're performing these [HIV/STI risk] behaviors, they are frowned upon. It would make it hard being honest not knowing that you're gonna be judged or knowing if they're gonna tell. Its worrisome makes you want to give your doctor the right answers; the answers that you're looking for. (Female, 16–18)

The Role of Professionalism, Personalism, and Clinician-Initiated Conversations in Clinician–Patient HIV/STI Communication

Adolescents acknowledging clinicians are professionals—Adolescents reflected on the importance of acknowledging clinicians are medical professionals and recognizing that they are trained to address HIV/STI health concerns; however, adolescents also observed that clinicians could improve clinician–adolescent HIV/STI communication by getting to know adolescents better. One participant mentioned:

> Talking to your doctor because they should know you better physically, mentally. They should know you better cause you're their patient and be able to send you to the right person who can help you make the right decision because they know your physical body. (Female, 16–18)

Participants expressed more of a willingness to engage in HIV/STI communication with someone who they are not personally connected to, but especially clinicians, because clinicians are professionally trained. One youth stated, "Sometimes it's easier to talk to somebody that you're not personally close with and it's always better when they are like an actual medical professional" (Male, 16).

Clinicians developing personalism to open avenues for HIV/STI communication—Youth reflected on the ways in which the clinicians' personalism is essential for engaging adolescents in HIV/STI communication. Specifically, participants expressed that clinicians should approach youth genuinely with an open and understanding perspective. One participant described, "I mean, it's the doctor's personality really. If the doctor's almost stuck up a little bit, it makes it weird. . . . So if they're more open and friendly and everything, it could make it easier" (Female, 17–18). Another youth reflected, "Because when you talk to your nurses and your doctor about, it's important they're more relaxed and they are understanding. They understand what you're going through and everything" (Female, 18).

Adolescents calling for clinician-initiated HIV/STI communication—Adolescents shared their perspectives on the potential for improved communication between clinicians and youth. Participants expressed their desire for clinician-initiated HIV/STI communication, which may facilitate HIV/STI risk disclosure. One youth mentioned:

> I just want them [clinicians] to ask me. And if they ask me, I'm gonna be honest. I do that. I'm not gonna say that [HIV/STI risk behaviors] unless they ask me. I really want to discuss it, but I'm not gonna say anything until you ask. (Female, 16–18)

Another participant affirmed, "It's just hard to start it [conversation with clinician]. If it's already started, then you don't have to go through the trouble of being embarrassed and, you know, getting it out" (Female, 17–18).

Discussion

This study explored youth experiences of clinician–adolescent HIV/STI communication in a sample of predominately African American adolescent women. Findings from the present study have important implications for the advancement of possible solutions to improve clinician–adolescent HIV/STI communication. Consistent with prior research (Alexander et al., 2014; Fuzzell et al., 2016), findings point to the need for clinician-initiated communication. Specifically, adolescents expressed the necessity for HIV/STI communication to be initiated by clinicians, which may provide youth with opportunities to be more forthcoming with respect to their HIV/STI risk behaviors.

Findings also shed light on the importance for clinicians to ensure confidentiality, which may encourage youth to disclose HIV/STI risk behaviors. Notably, we recruited participants located in a state whereby youth have the right to consent to substance use and sexual health care, without parental consent or knowledge (Michigan Department of Community Health, 2012). This state policy may have an indirect effect on disclosure of HIV/STI risk behaviors through clinician–adolescent HIV/STI communication. Therefore, assuring adolescents of their rights to confidentiality by clinicians may be one strategy to encourage disclosure of HIV/STI risk behaviors. The present findings suggest that additional research is needed to understand both the direct and indirect effects of state policies on adolescent HIV/STI risk behaviors.

Importantly, perceived judgment from clinicians was a salient experience that prevented adolescents from engaging in HIV/STI communication. From a clinical perspective, clinicians working with adolescent populations may benefit from engaging in self-of-the-clinician training (Ganzer, 2007). Ultimately, the goal of self-of-the-clinician training is to improve self-awareness aimed at minimizing bias and preconceived notions with respect to adolescent drug use and sexual risk behaviors, which, in turn, may improve clinician–adolescent HIV/STI communication. Furthermore, more health communication research is needed to identify mechanisms by which face-to-face disclosure of HIV/STI risk behaviors to clinicians are prevented. Examining perceived judgement from clinicians as one pathway through which lower levels of HIV/STI communication occurs may be helpful.

The present study has important theoretical implications. Consistent with ecodevelopmental theory, youths' behaviors influence and are influenced by their ecology (Szapocznik & Coatsworth, 1999). The present study expands on ecodevelopmental theory by demonstrating its utility within the primary care system. For example, adolescents' concerns with being forthcoming about their HIV/STI risk behaviors may, in part, be due to clinicians not emphasizing confidentiality and youths' fear of risk behavior disclosure to their parents. This social interaction demonstrates the ways in which both clinicians and adolescents influence and are influenced by each other in a reciprocal manner.

Incorporating interpersonal communication processes (Duggan, 2006; Ong et al., 1995) into an ecodevelopmental framework proved to have great utility in the present study. Consistent with interpersonal communication perspectives, core communication skills characterized by clinician expressions of empathy and providing patients with opportunities to lead their primary care visits based on topics of interest to them are linked to improved communication quality and health outcomes (Cooper-Patrick et al., 1999; Street, 2003). The present study confirms and expands on these theoretical perspectives by highlighting specific dimensions of HIV/STI communication that adolescents find important to them. Specifically, adolescents described the ways in which they perceive clinicians as judgmental and uncomfortable with HIV/STI discussions, and their desire for clinicians to approach HIV/STI communication in a genuine and warm manner. From an interpersonal communication perspective, addressing these concerns by ameliorating adolescents' uncertainty and reducing stigma may lead to optimally effective clinician–adolescent HIV/STI communication (Duggan, 2006).

From an intervention perspective, programs targeting clinician–adolescent communication as a mechanism by which change occurs are needed, but limited. Interventions focused on improving clinician–adolescent sexual risk communication are efficacious in preventing and reducing condomless sex (Cooper, Toskin, Kulier, Allen, & Hawkes, 2014). However, less is known with respect to drug use—a behavior that parallels sexual risk behaviors—and thus, the need to examine interventions targeting multiple adolescent HIV/STI risk behaviors remains.

Findings from this study should be interpreted in light of several limitations. First, although not a methodological limitation, this study was qualitative in nature, and thus we cannot make any inferences regarding causality or our findings' external validity. Second, the sample consisted of predominantly African American adolescent women recruited from one youth-centered health care clinic in Southeast Michigan; therefore, findings may not be generalizable to other adolescent populations. Third, this study captures adolescent perspectives, but it is also important to understand clinicians' experiences with respect to engaging with youth in HIV/STI communication. Notwithstanding these limitations, this study highlights, from the adolescents' perspective, experiences of clinician–adolescent HIV/STI communication and potential strategies to engage youth in these important conversations.

This study also has important clinical implications. Although federal recommendations highlight the need for clinicians to provide adolescent HIV/STI preventative care (Agency for Healthcare Research & Quality Preventive Services Task Force, 2014; U.S. Preventive Services Taskforce, 2015), numerous opportunities and challenges—ranging from individual- to structural-level—exist. At the individual level, for example, youth described the clinicians' uncomfortableness with adolescent risk behaviors as a significant barrier to clinician–adolescent HIV/STI communication. Clinicians' embarrassment to discuss HIV/STI risk poses a significant challenge to engage patients in these conversations (Schuster et al., 1996). However, at the structural-level, lack of training is a significant barrier to engage clinician's patients in HIV/STI communication (Schuster et al., 1996). In fact, clinicians have reported that a significant challenge to their practice is the variability in the adequacy of training in adolescent health, including HIV/STI communication (Sterling, Kline-Simon, Wibbelsman, Wong, & Weisner, 2012). With expected increases in primary care visits by youth (English, 2012)—a trend that will only increase as a result of shifts in public health policies—it is essential to train clinicians to effectively and competently work with youth (Kaul, Gong, Guiton, Rosenberg, & Barley, 2014).

This study sheds light on important directions in future health communication research. Examining the association between clinician–adolescent HIV/STI communication and adolescent HIV/STI risk behaviors in a multivariate design is an important next step. Although some researchers have demonstrated a link between clinician–adolescent communication and some adolescent health outcomes (Clawson et al., 2016), a dearth of health communication research has focused on HIV/STIs. Furthermore, there remains the need to develop a fuller understanding of clinicians' perspectives with respect to experiences of clinician–adolescent HIV/STI communication. Ultimately, this line of health communication research has the potential to contribute to identifying etiological factors influencing adolescent HIV/STI risk behaviors.

References

Agency for Healthcare Research & Quality Preventive Services Task Force. The guide to clinical preventive services. 2014. Retrieved from https://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/guide/index.html

Alexander SC, Fortenberry JD, Pollak KI, Bravender T, Davis JK, Østbye T, Shields CG. Sexuality talk during adolescent health maintenance visits. JAMA Pediatrics. 2014; 168:163. http://doi.org/10.1001/jamapediatrics.2013.4338. [PubMed: 24378686]

Alexander SC, Fortenberry JD, Pollak KI, Ostbye T, Bravender T, Tulsky JA, Shields CG. Disclosure of sexual intercourse by teenagers: Agreement between telephone survey responses and annual visit disclosures. Clinical Pediatrics. 2015; 54:529–533. http://doi.org/10.1177/0009922815580074. [PubMed: 25857726]

Arya M, Patel S, Kumar D, Zheng MY, Amspoker AB, Kallen MA, Giordano TP. Why physicians don't ask: Interpersonal and intrapersonal barriers to HIV testing-making a case for a patient-initiated campaign. Journal of the International Association of Providers of AIDS Care. 2014; 15:306–312. [PubMed: 25421929]

Bartlett EE, Grayson M, Barker R, Levine DM, Golden A, Libber S. The effects of physician communications skills on patient satisfaction; Recall, and adherence. Journal of Chronic Diseases. 1984; 37:755–764. http://doi.org/10.1016/0021-9681(84)90044-4. [PubMed: 6501547]

Beach MC, Roter DL, Saha S, Korthuis PT, Eggly S, Cohn J, Wilson IB. Impact of a brief patient and provider intervention to improve the quality of communication about medication adherence among HIV patients. Patient Education and Counseling. 2015; 98:1078–1083. http://doi.org/10.1016/j.pec.2015.05.011. [PubMed: 26021185]

Bertakis KD, Callahan EJ, Helms LJ, Azari R, Robbins JA, Miller J. Physician practice styles and patient outcomes: differences between family practice and general internal medicine. Medical Care. 1998; 36:879–91. [PubMed: 9630129]

Boekeloo BO, Schamus LA, Simmens SJ, Cheng TL, O'Connor K, D'Angelo LJ. A STD/HIV prevention trial among adolescents in managed care. Pediatrics. 1999; 103:107–15. [PubMed: 9917447]

Bowen GA. Naturalistic inquiry and the saturation concept: A research note. Qualitative Research. 2008; 8:137–152. http://doi.org/10.1177/1468794107085301.

Carvajal DN, Burrell L, Duggan AK, Barnet B. Repeat pregnancy prevention self-efficacy in adolescents: Associations with provider communication, provider type, and depression. Southern Medical Journal. 2012; 105:591–7. http://doi.org/10.1097/SMJ.0b013e31826ff173. [PubMed: 23128802]

Centers for Disease Control and Prevention. HIV Surveillance Report, 2012. 2014a; 24 Retrieved from http://www.cdc.gov/hiv/topics/surveillance/resources/reports/.

Centers for Disease Control and Prevention. Sexually transmitted disease surveillance 2013. Atlanta, GA: U.S. Department of Health and Human Services; 2014b.

Clawson AH, Robinson LA, Ali JS. Physician advice to adolescents about smoking: Who gets advised and who benefits most? Journal of Adolescent Health. 2016; 58:195–201. http://doi.org/10.1016/j.jadohealth.2015.10.006. [PubMed: 26802992]

Cooper B, Toskin I, Kulier R, Allen T, Hawkes S. Brief sexuality Communication--a behavioural intervention to advance sexually transmitted infection/HIV prevention: A systematic review. BJOG: An International Journal of Obstetrics and Gynaecology. 2014; 121:92–103. https://doi:10.1111/1471-0528.12877.

Cooper-Patrick L, Gallo JJ, Gonzales JJ, Vu HT, Powe NR, Nelson C, Ford DE. Race, gender, and partnership in the patient-physician relationship. JAMA. 1999; 282:583–9. [PubMed: 10450723]

Córdova, D., Alers-Rojas, F., Lua, FM., Bauermeister, J., Nurenberg, R., Ovadje, L., Council, YL. The usability and acceptability of an adolescent mHealth HIV/STI and drug abuse preventive intervention in primary care; Behavioral Medicine. 2016. p. 1-12.Advanced online publication. http://dx.doi.org/10.1080/08964289.2016.1189396

Córdova D, Bauermeister J, Fessler K, Delva J, Nelson A, Nurenberg R, Salas-Wright CP. A community-engaged approach to developing an mHealth HIV/STI and drug abuse preventive intervention for primary care: A qualitative study. Journal of Medical Internet Research mHealth uHealth. 2015; 3:e106. http://doi:10.2196/mhealth.4620.

Córdova D, Heinze J, Mistry R, Hsieh H-F, Stoddard S, Salas-Wright CP, Zimmerman MA. Family functioning and parent support trajectories and substance use and misuse among minority urban adolescents: A latent class growth analysis. Substance Use & Misuse. 2014; 49:1908–1919. http://doi:10.3109/10826084.2014.935792. [PubMed: 25033377]

Córdova D, Huang S, Pantin H, Prado G. Do the effects of a family intervention on alcohol and drug use vary by nativity status? Psychology of Addictive Behavior. 2012; 26:655–660. http://doi.org/10.1037/a0026438.

Córdova D, Huang S, Lally M, Estrada Y, Prado G. Do parent-adolescent discrepancies in family functioning increase the risk of Hispanic adolescent HIV risk behaviors? Family Process. 2014; 53:348–363. http://doi:10.1111/famp.12067. [PubMed: 24617745]

Duggan A. Understanding interpersonal communication processes across health contexts: Advances in the last decade and challenges for the next decade. Journal of Health Communication. 2006; 11:93–108. http://doi.org/10.1080/10810730500461125.

English, A. The Patient Protection and Affordable Care Act of 2010: How does it help adolescents and young adults?. Chapel Hill, NC: Center for Adolescent Health & the Law; San Francisco, CA: National Adolescent Health Information and Innovation Center; 2010. Retrieved from http://nahic.ucsf.edu/downloads/HCR_Issue_Brief_Aug2010_Final_Aug31.pdf

Fuzzell L, Fedesco HN, Alexander SC, Fortenberry JD, Shields CG. I just think that doctors need to ask more questions: Sexual minority and majority adolescents' experiences talking about sexuality with healthcare providers. Patient Education and Counseling. 2016; 99:1467–1472. http://doi.org/10.1016/j.pec.2016.06.004. [PubMed: 27345252]

Ganzer C. The Use of Self from a Relational Perspective. Clinical Social Work Journal. 2007; 35:117–123. http://doi.org/10.1007/s10615-007-0078-4.

Goyal MK, Dowshen N, Mehta A, Hayes K, Lee S, Mistry RD. Pediatric primary care provider practices, knowledge, and attitudes of human immunodeficiency virus screening among adolescents. The Journal of Pediatrics. 2013; 163:1711–1715. http://doi.org/http://dx.doi.org/10.1016/j.jpeds.2013.08.023. [PubMed: 24084105]

Guest G, Bunce A, Johnson L. How many interviews are enough?: An experiment with data saturation and variability. Field Methods. 2006; 18:59–82. http://doi.org/10.1177/1525822X05279903.

Ha JF, Longnecker N. Doctor-patient communication: A review. The Ochsner Journal. 2010; 10:38–43. http://doi.org/10.1043/toj-09-0040.1. [PubMed: 21603354]

Halpern-Felsher BL, Ozer EM, Millstein SG, Wibbelsman CJ, Fuster CD, Elster AB, Irwin CE. Preventive services in a health maintenance organization: How well do pediatricians screen and educate adolescent patients? Archives of Pediatrics & Adolescent Medicine. 2000; 154:173–9. [PubMed: 10665605]

Ham P, Allen C. Adolescent health screening and counseling. American Family Physician. 2012; 86:1109–16. [PubMed: 23316983]

Haskard KB, Williams SL, Dimatteo MR, Rosenthal R, White MK, Goldstein MG. Physician and patient communication training in primary care: Effects on participation and satisfaction. Health Psychology. 2009; 28:263. http://doi.org/10.1037/a0015234.

Hazkard-Zolnierek KB, Dimatteo MR. Physician communication and patient adherence to treatment: A meta-analysis. Medical Care. 2009; 47:826–834. http://doi.org/10.1097/MLR.0b013e31819a5acc. [PubMed: 19584762]

Henry-Reid LM, O'Connor KG, Klein JD, Cooper E, Flynn P, Futterman DC. Current pediatrician practices in identifying high-risk behaviors of adolescents. Pediatrics. 2010; 125:e741–e747. http://doi.org/10.1542/peds.2009-0271. [PubMed: 20308220]

IOM (Institute of Medicine) and NRC (National Research Council). The Science of Adolescent Risk-Taking: Workshop Report. Committee on the Science of Adolescence. Washington, DC: The National Academies Press; 2011.

Johnston LD, O'Malley PM, Miech RA, Bachman JG, Schlenberg JG. Monitoring the future national results on adolescent drug use: Overview of key findings. Institute for Social Research, the University of Michigan. 2016:1–7.

Kann L, Kinchen S, Shanklin SL, Flint KH, Kawkins J, Harris WA, Zaza S. Youth Risk Behavior Surveillance--United States, 2015. MMWR. 2016; 63 Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/24918634.

Kaul P, Gong J, Guiton G, Rosenberg A, Barley G. Measuring pediatric resident competencies in adolescent medicine. Journal of Adolescent Health. 2014; 55:301–303. http://dx.doi.org/10.1016/j.jadohealth.2014.05.003. [PubMed: 25049044]

Kelly M. The role of theory in qualitative health research. Family Practice. 2009; 27:285–290. http://doi.org/10.1093/fampra/cmp077. [PubMed: 19875746]

Klein JD, Wilson KM. Delivering quality care: Adolescents' discussion of health risks with their providers. Journal of Adolescent Health. 2002; 30:190–195. http://doi.org/10.1016/S1054-139X(01)00342-1. [PubMed: 11869926]

Krueger, RA., Casey, MA. Focus groups: A practical guide for applied research. Thousand Oaks, CA: Sage Publications; 2014.

Michigan Department of Community Health. Michigan laws related to right of a public health law. 2012. Retrieved from https://www.michigan.gov/documents/mdch/Michigan_Minor_Consent_Laws_for_SexualHealth_292774_7.pdf

Morrow SL. Quality and trustworthiness in qualitative research in counseling psychology. Journal of Counseling Psychology. 2005; 52:250–260.

Moss JL, Reiter PL, Rimer BK, Brewer NT. Collaborative patient-provider communication and uptake of adolescent vaccines. Social Science & Medicine. 2016; 159:100–107. [PubMed: 27176467]

Ray MK, Beach MC, Nicolaidis C, Choi D, Saha S, Korthuis PT. Patient and provider comfort discussing substance use. Family Medicine. 2013; 45:109–117. [PubMed: 23378078]

Robinson N. The use of focus group methodology—with selected examples from sexual health research. Journal of Advanced Nursing. 1999; 29:905–913. [PubMed: 10215982]

Ong LM, de Haes JC, Hoos aM, Lammes FB. Doctor-patient communication: a review of the literature. Social Science & Medicine. 1995; 40:903–18. http://doi.org/10.1016/0277-9536(94)00155-M. [PubMed: 7792630]

Schuster MA, Bell RM, Petersen LP, Kanouse DE. Communication between adolescents and physicians about sexual behavior and risk prevention. Archives of Pediatrics & Adolescent Medicine. 1996; 150:906–913. http://doi:10.1001/archpedi.1996.02170340020004. [PubMed: 8790119]

Shindel AW, Ando KA, Nelson CJ, Breyer BN, Lue TF, Smith JF. Medical student sexuality: How sexual experience and sexuality training impact U.S. and Canadian medical students comfort in dealing with patients sexuality in clinical practice. Academic Medicine. 2010; 85:1321–1330. http://doi.org/10.1097/ACM.0b013e3181e6c4a0. [PubMed: 20671459]

Sterling SA, Kline-Simon AH, Wibbelsman CJ, Wong AO, Weisner CM. Screening for adolescent alcohol and drug use in pediatric health-care settings: Predictors and implications for practice and policy. Addiction Science & Clinical Practice. 2012; 7(13) http://doi.org/10.1186/1940-0640-7-13.

Street, RL. Communication in medical encounters: An ecological perspective. In: Thompson, TL.Dorsey, AM.Miller, KI., Parrot, R., editors. Handbook of health communication. Mahwah, NJ: Lawrence Erlbaum Associates Publishers; 2003. p. 63-89.

Szapocznik, J., Coatsworth, JD. An ecodevelopmental framework for organizing the influences on drug abuse: A developmental model of risk and protection. In: Glantz, MD., Hartel, RC., editors. Drug abuse: Origins & interventions. Washington D.C: American Psychological Association; 1999. p. 331-366.

Teutsch C. Patient-doctor communication. Medical Clinics of North America. 2003; 87:1115–1145. http://doi.org/10.1016/S0025-7125(03)00066-X. [PubMed: 14621334]

Tates K, Meeuwesen L. Doctor-parent-child communication. A (re)view of the literature. Social Science & Medicine. 2001; 52:839–51. http://dx.doi.org/10.1016/S0277-9536(00)00193-3. [PubMed: 11234859]

Tolou-Shams M, Payne N, Houck C, Pugatch D, Beausoleil N, Brown LK. HIV testing among at-risk adolescents and young adults: A prospective analysis of a community sample. Journal of Adolescent Health. 2007; 41:586–593. http://doi.org/10.1016/j.jadohealth.2007.06.004. [PubMed: 18023788]

U.S. Preventive Services Task Force. Recommendations for primary care practice. 2015. Retrieved from http://www.uspreventiveservicestaskforce.org/Page/Name/recommendations

Vaismoradi M, Turunen H, Bondas T. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. Nursing and Health Sciences. 2013; 15:398–405. http://dx.doi.org/10.1111/nhs.12048. [PubMed: 23480423]

Wallerstein N, Duran B. Using community-based participatory research to address health disparities. Health Promotion Practice. 2006; 7:313–323. https://doi.org/10.1177/1524839906289376.