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Teaching Trainees to Deliver Adolescent Reproductive Health Services

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Abstract

OBJECTIVE—Delivery of reproductive services to adolescents varies by specialty and has been linked to differences in clinical training. Few studies have explored how different specialties' graduate medical education (GME) programs prepare providers to deliver adolescent reproductive services. We explored the perceptions of resident physicians regarding their training in delivering adolescent reproductive health services.

DESIGN—Between November 2008 and February 2009, nine focus groups were conducted with graduate medical trainees in three specialties that routinely care for adolescents. The semi-structured discussions were audio-recorded, transcribed and analyzed using an inductive approach to content analysis.

SETTING—Large, urban academic medical center in Pittsburgh, Pennsylvania

PARTICIPANTS—54 resident trainees in pediatrics, family medicine and obstetrics/gynecology

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INTERVENTIONS—None

MAIN OUTCOMES—Trainees' perspectives regarding the didactic teaching and clinical training in providing adolescent reproductive services

RESULTS—Five themes emerged reflecting trainees' beliefs regarding the best practices GME programs can engage in to ensure that trainees graduate feeling competent and comfortable delivering adolescent reproductive services. Trainees believed programs need to: 1) Provide both didactic lectures as well as diverse inpatient and outpatient clinical experiences; 2) Have faculty preceptors skilled in providing and supervising adolescent reproductive services; 3) Teach skills for engaging adolescents in clinical assessments and decision-making; 4) Train providers to navigate confidentiality issues with adolescents and caregivers; and 5) Provide infrastructure and resources for delivering adolescent reproductive services.

CONCLUSIONS—The three specialties differed in how well each of the five best practices were reportedly addressed during GME training. Policy recommendations are provided.

Keywords

adolescents; reproductive health services; graduate medical education; focus groups; qualitative research

INTRODUCTION

Young people under age 24 represent 21% of the U.S. population,[1] yet account for half of newly diagnosed sexually transmitted infections[2] (STI) and have the highest rate of unintended pregnancy among reproductive-age persons[3]. These outcomes translate into substantial costs to the health and social welfare systems.[4] To improve adolescent reproductive health (ARH), clinical guidelines recommend that adolescents receive reproductive education, counseling, and clinical services every one to three years.[5-11] Such counseling has been linked to reductions in adolescent sexual risk behavior.[12-16] Despite these guidelines, adolescents report low rates of reproductive counseling,[17-20] even when these services are clinically indicated[21,22].

ARH services are primarily delivered by pediatric, family medicine (FM), and obstetrics and gynecology (OB/GYN) providers.[19,20,23] With the exception of pediatrics, there are no ACGME guidelines specifying what trainees should learn regarding adolescent reproductive health. Thus, not surprisingly the types of ARH services delivered vary by specialty.[19,20] These differences have been linked to variations in providers' training.[24,25] However, few studies have explored how graduate medical education (GME) programs prepare trainees in different specialties to deliver ARH services.[26-28] Existing studies focus on trainees from a single specialty or are survey-based, which limits exploration of the inter-relationship among training factors that influence physicians' clinical practices.

In this study, we used focus group methodology to compare how GME programs at a large, urban academic health system prepared pediatric, FM, and OB/GYN trainees to deliver ARH. Our goal was to better understand the strengths and weaknesses in each specialty's approach to identify best practices that can be promoted across specialties.

MATERIALS AND METHODS

Between November 2008 and February 2009, we conducted focus groups with pediatric, FM and OB/GYN trainees at the University of Pittsburgh Medical Center (UPMC). At the time of this study, there were 80 trainees in pediatrics, 90 in FM, and 36 in OB/GYN. Trainees learned about the study through a presentation by a study team member at a weekly didactic lecture followed by an email from each program director. Trainees were invited to call the research office to schedule attendance at a focus group. Pediatric and OB/GYN focus groups were held by training year; FM focus groups were held by program site. At the focus groups, participants received dinner and \$50 gift card. The study was approved by the University of Pittsburgh's Institutional Review Board.

Three focus groups were conducted per specialty. Eighteen trainees from each specialty participated for a total of 54 participants. Participants completed a brief demographic questionnaire (**Table 1**). Focus groups lasted 90 minutes, on average. Discussions were led by two facilitators using a semi-structured question guide (**Figure 1**) that probed constructs from the Theory of Reasoned Action and Planned Behavior.[29] Focus groups were audio-recorded, transcribed and analyzed using both deductive and inductive approaches to content analysis[30] and the constant comparison method[31]. Two coders independently read each transcript to identify key themes linking residents' training and delivery of ARH services. Across the three specialties, five factors were identified as important influences on the delivery of ARH services: patient, provider, parental caregiver, interpersonal, and contextual factors. We developed a conceptual model illustrating the interrelationship among these five factors, shown in **Figure 2**. The research team then compared how these factors varied across specialties to identify key strengths and weakness inherent in how each specialty prepares trainees to deliver ARH services.

RESULTS

Thematic Overview

Five themes emerged reflecting what trainees considered to be best practices in GME programs to ensure that trainees graduate competent and comfortable delivering ARH services. Trainees believed programs need to: 1) provide both didactic lectures and diverse inpatient and outpatient clinical experiences; 2) have faculty preceptors skilled in providing and supervising ARH services; 3) teach skills for engaging adolescents in clinical assessments and decision making; 4) train providers to navigate confidentiality issues with adolescents and their caregivers; and 5) provide infrastructure and resources for delivering ARH services. **Table 2** highlights the strengths and weaknesses in each specialty as they relate to each of these best practices. Although there were variations among trainees in each specialty with regard to individuals' comfort and skill delivering ARH services, our summary highlights key similarities and differences across specialties. In general, the findings within specialties were similar across training years, except where differences are noted.

Theme 1: Need both didactic lectures and diverse inpatient and outpatient clinical experiences

Across the three specialties, trainees agreed that didactic lectures need to provide up-to-date information about the diagnosis, management and treatment of reproductive issues while tailoring the content to address the specific needs, concerns, and challenges of providing reproductive services to adolescents. Pediatric trainees reported receiving “*a lot of didactics*” on how to meet the reproductive needs of adolescents; some linked their confidence with delivering ARH services to these lectures. FM and OB/GYN residents reported receiving lectures on reproductive topics but noted that few were tailored to address adolescents’ unique needs. One FM trainee noted, “Once, I think maybe even twice this happened where [a lecture has] been focused on adolescents.” An OB/GYN resident remarked, “I think we see a lot of adolescent patients but they are not viewed as a special population with discrete needs that should be addressed.”

Trainees in all three specialties expressed a belief that didactic lectures alone were insufficient for preparing trainees to care for adolescents. They emphasized that diverse inpatient and outpatient clinical experiences with adolescents were also needed. Most trainees reported few or sporadic encounters with adolescents throughout their training. The exceptions were a small number of FM and pediatric trainees assigned to continuity clinic sites with high volumes of adolescent patients. Overall, pediatric trainees reported more interactions with adolescents on inpatient and outpatient rotations and were more likely to report longitudinal experiences caring for adolescents. The pediatric program was the only one with a formal, month-long adolescent outpatient rotation in each training year during which trainees managed a diversity of ARH issues. One pediatric trainee remarked, “That month of seeing adolescent's day-in-and-day-out made a difference. I am much more comfortable with pelvic exams [and] much more comfortable talking about STD's or contraception.”

FM and OB/GYN trainees reportedly managed a narrow range of ARH issues with little to no continuity of care experiences with adolescents. Most inpatient encounters were on labor and delivery; while outpatient encounters were primarily for prenatal care, contraceptive visits, and STI screening and treatment services. Because of their limited clinical experiences, FM and OB/GYN trainees reported less comfort caring for ARH issues, particularly providing education and counseling services. Compared to pediatric trainees, FM and OB/GYN trainees reported referring adolescents to other providers for ARH services more often. This is exemplified in an OB/GYN trainee's account of her discomfort when a mother brought her daughter and, “wanted us to talk to [the daughter] about reproductive health care in general. We said ‘We're not specialized in teen care,’ and gave her a number to the Children's Hospital.”

Theme 2: Need preceptors skilled in providing and supervising ARH services

Trainees noted the importance of faculty preceptors who are experienced and comfortable caring for ARH issues. Such preceptors were seen as valuable for role modeling how to translate information learned in lectures into high quality care in actual clinical situations. An OB/GYN trainee described the value of learning from an exemplary preceptor in a teen

pregnancy clinic: “What I thought was the most helpful [was] when...you listen to how NURSE-1 talks to these girls...she puts things in a very different set of terms than how we talk to the rest of our patients...We keep saying they [adolescents] all think in a very different way and she had a very good way of counseling them. I thought that was the most helpful out of all of our interactions and didactics and teachings on teens.”

Trainees in all three specialties described being restricted from providing ARH by preceptors who were uncomfortable both providing ARH and supervising trainees who provided these services. Trainees believed these restrictions undermined their ability to develop their own comfort and skills. As one pediatric trainee noted: “The training we got [on the adolescent medicine outpatient clinic rotation made us] comfortable managing contraception, STD's and things like that. But, [in my continuity] clinic if someone comes in and wants birth control pills, some of the attendings will feel comfortable writing for it and will let me write for it, but a majority of them are [like], ‘Let's just send them to adolescent clinic.’ So, I feel like I could do it but I don't have the opportunity.”

In contrast to OB/GYN trainees, pediatric and FM trainees also described preceptors with inaccurate knowledge about appropriate reproductive services for adolescents. This affected the quality of services trainees could provide. For example, one FM trainee described a preceptor whose inaccurate knowledge about the eligibility criteria for using intrauterine devices in adolescents meant adolescents could not be counseled about IUDs if they had never been pregnant.

Theme 3: Need skills for engaging adolescents in clinical assessments and decision making

Across the three specialties, trainees noted more difficulty providing ARH services to adolescents in the early developmental period, which is marked by concrete thinking and greater discomfort discussing sexuality. Pediatric and FM trainees acknowledged these challenges but expressed a professional responsibility to provide these services and believed their training prepared them to interact with adolescents across all stages of cognitive and emotional development. They described their time spent counseling adolescents as an opportunity to both manage a clinical scenario and nurture adolescents' ability to make healthy decisions. A FM trainee summarized this well stating, “Every time I'm with an adolescent I say, ‘Well, what do you want for you life?’ ‘Where do you see yourself? What kinds of things are going to support that? So the outcomes aren't just pregnancy and STDs...They [adolescents] have the knowledge; it's just connecting the dots they need help with.’

In contrast, few OB/GYN trainees expressed comfort caring for younger or cognitively and emotionally less mature adolescents' reproductive needs. One described counseling adolescents as “a different psychology to deal with as a clinician...regardless of the teaching we've had or the guidelines that are there. It's very hard to communicate with girls...medically we feel prepared to deal with them as a patient, but psychologically, emotionally, socially that's the problem. And, it's hard to teach that skill set.” Few OB/GYN trainees recalled receiving instruction on how to manage the reproductive health needs of adolescents, particularly younger or less mature adolescents. Only one recalled a lecture (an

informal talk on morning rounds) about the relationship between adolescent cognitive development, adolescents' sexual decision-making, and how providers can effectively engage adolescents: "[Dr. X] was telling us...how thinking evolves as people grow up and how teens have that concrete way of thinking...I guess I sort of knew that but I never really had thought about that explicitly. It would be useful to...know how to counsel people who think that way, which is training I've never received."

In examining the narratives of OB/GYN trainees across training years, trainees were noted to become more paternalistic and directive when developing ARH care plans. Those in the first two years of training frequently described taking time to identify an adolescent's personal priorities so these could be reflected in care planning, a skill many reported learning in medical school. This is reflected in a quote by an intern who said, "A lot of teens have weird ideas about how [pregnancy occurs or] why they want to have a baby. I feel like I need to spend a lot of time finding out what their ideas are so I can actually have an intelligent conversation." In contrast, when describing her approach to birth control counseling with adolescents, a 4th year trainee said, "If you get ambiguous responses, I just volunteer what they should be getting. I mean, I just do. I say, 'You should get this.' And, if they don't fight with me, they just get it."

Theme 4: Need skills for navigating confidentiality issues with adolescents and caregivers

Trainees expressed awareness of different medicolegal issues when addressing ARH issues. Differences were evident among the three specialties. Across the three specialties, trainees described their need to learn how to explain adolescents' legal right to access confidential ARH services to adolescents and their caregivers. Compared to OB/GYN trainees, pediatric and FM trainees felt better prepared to address these issues. They felt more adept at explaining adolescents' right to confidential reproductive health services to adolescents and parents. They also expressed greater comfort with asking caregivers or partners accompanying adolescents to leave the room so the adolescent and provider could talk privately. Moreover, they were more likely to express comfort managing conflicts regarding confidential care when they arose. A pediatric trainee remarked that, "To the parents or siblings who are still in the room, I say: 'I still need to ask them questions on their own; just things that we ask everyone. But, I need you to please leave. And, the parents leave and [I can] get the real deal.'"

OB/GYN trainees felt less capable of navigating confidentiality when minors were accompanied by caregivers and romantic partners. They believed the types of clinical encounters OB/GYNs have with adolescents make it difficult to engage those accompanying an adolescent in discussions about adolescents' right to access confidential ARH or to involve others in clinical decision-making. Unlike pediatric and FM trainees, OB/GYN trainees noted that their encounters with accompanied adolescents were often emotionally charged situations that reflected preexisting family conflict surrounding adolescents' sexuality. Examples of such situations included a thirteen year old brought to the clinic by a parent for pregnancy and STD testing because the parent recently learned of the teen's sexual activity; and, an adolescent brought by her upset father for contraceptive counseling following a miscarriage. In managing these situations, OB/GYN trainees described their

attempts to delicately balance respect for adolescents' rights to privacy with avoiding escalating family conflict and impairing time efficiency. Some reported that they sacrificed obtaining an accurate history to avoid conflict. One OB/GYN resident remarked, "Well, that's always difficult. I make a policy of trying to discretely ask...the other person to leave, but if somebody refuses, then I don't really push it."

Pediatric trainees discussed multiple additional challenges to ensuring confidentiality. The main issues discussed included the limited availability of rooms to separate parents from their adolescent or to separate children when multiple children in a family presented for care; potential breaches of confidentiality from insurance companies' explanation of benefits ("*parents will find out through insurance*"); the need to document confidential histories in paper records due to the limits of confidentiality in the available electronic medical record (EMR); use of coded language in the EMR to document key facts needed for follow-up while avoiding inadvertent disclosures in the event records are requested by family ("so they can put it in the medical record but the family wouldn't know what it meant if they saw it"); and providing family planning supplies clandestinely. Regarding the last point, one trainee summed this up well describing an adolescent who wanted birth control but "was so afraid her mom would find out. We were able to get her some but then like she had a bag leaving the clinic. It was so awkward. We were like, "Do you have a bag you can put the bag in?" Just the practical sense of leaving the clinic with oral contraception and not having your mom know was really tough."

Theme 5: Need infrastructural support for delivering ARH services

Pediatric and FM trainees described three types of infrastructural support that facilitated their development of skills to care for adolescents' reproductive needs: departmental policies integrated throughout all clinical care environments that govern the care of adolescents; the availability of clinical management tools; and, the presence of equipment and supplies necessary to provide ARH services. Recommended departmental policies primarily revolved around the provision of confidential care. Pediatric trainees reported that in most of their inpatient and outpatient clinical environments, all medical staff understood that obtaining a confidential history was part of history taking and this process was routinely communicated to patients and families. Integration of this policy across clinical care environments made it easier for trainees to discuss confidentiality with families and to obtain confidential histories. No mention was made of such infrastructural supports among OB/GYN trainees.

Pediatric and FM trainees noted that having standardized tools for performing psychosocial risk screenings ensured that trainees routinely delivered such services. A pediatric trainee remarked how use of a paper-based risk assessment form completed by adolescents prior to their visit facilitated delivery of counseling services: "[The form] is a requirement...They can fill it out on their own in the room and then we take it from them. That is also a good starting point to say, 'I see on this form you marked this as being an issue.' FM trainees reported that, because they saw adolescent patients relatively infrequently, these tools served as important reminders of which adolescent assessments were indicated during a visit. A FM trainee commented on the utility of adolescent patient management tools in the electronic medical record, "Our computer system helps us out. We have set notes for different age

groups in an adolescent period...[They] have a lot of the social [and] developmental questions to ask. I glance through those and feel like I can get a good sense of what I should be asking and what should be going on in their life and what I should talk about...I feel a little more confident in what I'm *supposed to be accomplishing in [each] visit*". OB/GYN trainees made no mention of having access to standardized tools to assist with caring for adolescent patients.

Pediatric and FM trainees expressed frustration over the lack of equipment for providing reproductive services, most notably the absence of exam tables equipped with stirrups. This was a major reason for referring adolescents to adolescent medicine providers or OB/GYNs. Moreover, a lack of contraceptive supplies or skilled preceptors who could teach trainees to place devices such as IUDs and implants was another source of frustration. One trainee commented on the joint effect of having under-resourced clinics and preceptors with limited skills for providing adolescent reproductive services: "[My continuity clinic has] only the five year [IUD]. We don't have the ten year [one]. And, we only have one attending who places [IUDs], so it's not easy." No mention was made among OB/GYN trainees of lacking these material and human resources.

DISCUSSION

We used focus group methodology to explore the perceptions of graduate medical trainees in pediatric, FM, and OB/GYN programs at a large, urban academic center regarding their training and experiences delivering ARH services. By comparing our findings across these specialties, we identified five themes trainees considered to be best practices for ensuring that trainees graduate feeling competent and comfortable delivering adolescent reproductive services. Trainees believed programs need to: 1) Provide both didactic lectures and diverse inpatient and outpatient clinical experiences on an on-going, rather than episodic, basis; 2) have faculty preceptors skilled in delivering and supervising ARH services; 3) teach skills for engaging adolescents at different stages of cognitive and emotional maturity in clinical assessments and decision making; 4) train providers to navigate confidentiality issues with adolescents and caregivers; and, 5) provide adequate infrastructure and resources in clinical settings to support the delivery of ARH services. The three specialties differed in their strengths and weaknesses. These differences highlight areas to target to ensure that we are training physicians who are skilled at meeting the reproductive health needs of our nation's adolescents.

A number of our study findings are similar to those found in previous studies. For example, studies conducted among pediatric programs have also found that while sexual health topics are included in training curricula, shortages of adolescent trained specialists coupled with wide variations in reproductive services offered at clinical sites and low volumes of adolescent patients in continuity clinic sites limit trainees' education.[32-34] A 2001 study by the American Medical Association found similar results for FM programs and noted that both pediatric and FM programs had insufficient infrastructure and supplies at clinical sites to deliver quality ARH services. One single-site study found OB/GYN programs provide little training or clinical experiences in ARH.[35] The similarities between our findings and

these studies demonstrates that, despite substantial curricular changes since the 1978 Task Force on Pediatric Education, much room remains for improvement.[25]

Our study extends the previous literature in several ways. By comparing pediatric, FM and OB/GYN programs, we were able to move beyond documenting programmatic deficiencies to identify programmatic weakness and strengths that can inform programmatic changes. Weaknesses common among all three specialties' training programs included limited clinical encounters with adolescent patients, offering a limited range of ARH services to trainees outside of subspecialty rotations, and limited access to preceptors skilled in delivering ARH. These weaknesses may set trainees up for failure by giving trainees knowledge and skills that then dwindle over time due to inadequate opportunities to develop a sense of mastery of the skills and competencies necessary to delivery high quality ARH service. Specialty specific weaknesses included a lack of infrastructural resources and reproductive supplies among pediatric and FM programs. Also notable was the failure of FM and OB/GYN programs to teach trainees how to address the unique reproductive health needs of adolescents. This was a notable strength in the pediatric program. For the OB/GYN program, two key weaknesses were the lack of attention given to equipping trainees to provide adolescents with confidential care and to building skills for successfully engaging adolescents across all adolescent developmental stages. These were notable strengths of the pediatric and FM programs.

POLICY IMPLICATIONS

Given the limited ACGME requirements regarding what trainees in pediatrics, FM and OB/GYN should learn about adolescent reproductive health coupled with the critical role that providers from these specialties play in caring for adolescent patients, our findings have a number of implications for improving training programs. For programs to ensure that trainees learn how to care for adolescents' unique reproductive needs, programs may need to create expanded opportunities for trainees to translate the skills learned in didactic lectures into effective adolescent care plans. In addition to ensuring access to skilled preceptors, interactive teaching strategies like case-based learning, standardized patients, and role-plays can be used to help trainees learn to navigate the highly nuanced issues regarding confidentiality and shared decision-making that must be tackled when ARH issues.[36] Though labor intensive to develop, these approaches are highly effective for teaching learners to manage sensitive medical topics, such as sexuality.[37] Free online resources are also available through various reproductive health organizations' websites.[38-42]

Improving the availability of infrastructural resources at clinical sites is another important implication. Some resources, like standardized adolescent screening forms, can be easy to incorporate into clinical practice and are a simple, inexpensive way to ensure delivery of high quality ARH services. However, access to expensive resources (e.g., gynecologic exam tables) will likely continue to be restricted at clinical sites, depending on patient volume. Where this is the case, programs should consider providing trainees with access to clinical sites that routinely deliver ARH services to maintain and expand trainees' skills. Family planning clinics at Title X sites or run by various clinical specialties as well as school based health centers are just a few examples.

Given the infrequent number of recommended health care visits for adolescents, training programs will need to think creatively about how to improve trainees access to high and sustained volume of adolescent patients throughout all training years. Fox advocated four ways to do so, including extending the length of adolescent-focused rotations, adding optional training tracks focused on adolescent medicine to residency programs across key specialties, creating cross-disciplinary residency programs, and increasing the availability of post-graduate fellowship programs in adolescent health.[43] Given the limited growth of fellowship applications in adolescent medicine and in pediatric and adolescent gynecology, along with financial pressures that limit trainees selection of these career paths, options that rely on self-selection for additional training are unlikely to result in substantial changes in the status quo. Active approaches that acknowledge our nation's needs for more providers skilled in delivering ARH services are warranted. For example, adding rotations in other departments or in non-traditional settings (e.g., school-based health centers) that function like continuity clinics where trainees can gain clinical training in these sites through frequent sessions at routine intervals is one option. Increasing the recommended number of adolescent visits or creating visits that are covered by insurance and specifically designed to address adolescent sexual health issues are two additional policy options.

LIMITATIONS

There are several limitations of our study. This study was limited to a single institution and may not reflect the experiences of trainees at other institutions. Different training programs may have different perspectives based on their institution's resources and structure. However, given that our academic center has among the largest training programs for each specialty and that trainees have access to specialists in both adolescent medicine and pediatric and adolescent gynecology, the training experiences of our participants are likely more comprehensive than that of many other programs. Moreover, the similarities between our findings and prior studies supports the validity of our results. Second, our study participants included a self-selected sample of trainees. Selection bias may therefore have skewed our results, particularly if our sample was over-represented by individuals with more or less exposure to or interest in adolescent health. Third, data were not collected about the proportion of adolescents, particularly female adolescents, seen by participants. This information was also not collected by the training programs. However, unpublished data from a survey conducted with 154 trainees (74.7% response rate) from the same three programs during the study year revealed that 58.4% estimated that adolescents comprised 25% or less of their patient population, 35.1% estimated adolescents comprised 26-50%, 5.2% estimated adolescents comprised 51-75%, and 1.3% estimated adolescents comprised 76% or more of their patient population. When asked to estimate the proportion of their patients who were specifically female adolescents, 13.5% estimated that female adolescents represented 25% or less of their patients, 20.6% estimated female adolescents represented 26-50% of their patients, 44.5% estimated female adolescents represented 51-75% of their patients, and 21.3% estimated female adolescents represented 76% or more of their patients. Finally, we examined trainees' perceptions of their training experiences, which may not reflect each program's curriculum.

CONCLUSION

These findings from a large academic medical center with specialists in adolescent medicine and pediatric and adolescent gynecologists suggest that, even in highly resourced settings, training in providing adolescent reproductive health services still warrants improvements.

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Domain	Stem Question
Education / training	Describe the training you received in adolescent medicine as part of your residency.
General scope of practice	What types of things do you generally see adolescents for in your clinical practice?
General prevention	What is your approach to discussing prevention topics with adolescent patients?
Reproductive health*	<p>Counseling behavior: What reproductive health topics do you generally discuss with your adolescent patients?</p> <p>Behavioral Intention: Do you think you will discuss reproductive health issues with adolescents in your clinical practice following training?</p> <p>Attitudes and Beliefs about service delivery (sample questions):</p> <ul style="list-style-type: none"> - How do these discussions differ for younger adolescents (aged 10-14) compared to older adolescents (15-18 or 15-21)? - How do these discussions differ for male versus female adolescent patients? - How does your approach to discussing reproductive

	<p>health topics differ for adolescent who are sexually active compared to those who are not?</p> <p>Motivations to deliver reproductive services: What prompts you to discuss reproductive health topics with your adolescent patients? (e.g., reason for visit, parent, pregnancy, routine part of visit)</p> <p>Perceived Behavioral Control: What makes it easy or hard to discuss reproductive health issues with adolescents?</p>
*Questions probe constructs from the Theory of Reasoned Action and Planned Behavior	

Figure 1.
Question guide with sample probes

Figure 2.

Factors affecting the delivery of reproductive health counseling and services

Table 1

Demographic Characteristics of Study Participants (n=54)

	Pediatrics (n=18) (%)	Family Medicine (n=18) (%)	OB/GYN (n=18) (%)
Female	16 (88.9)	12 (66.7)	17 (95.6)
Age range (years)	27-34	27-43	27-33
Race/ethnicity			
White, non-Hispanic	16 (88.9)	6 (33.3)	14 (77.8)
Black, non-Hispanic	0	3 (16.7)	2 (11.1)
Hispanic	0	0	0
Asian/Pacific Islander, Native American, Alaska Native	2 (11.1)	7 (38.9)	1 (5.6)
Other	0	2 (11.1)	3 (16.7)
Residency year			
1	6 (33.3)	7 (38.9)	6 (33.3)
2	8 (44.4)	3 (16.7)	4 (22.2)
3	4 (22.2)	3 (16.7)	3 (16.7)
4	N/A	N/A	5 (27.8)

Table 2

Key strengths and weaknesses in each specialty, by theme

Themes	Pediatrics	Family Medicine	OB/GYN
Theme 1: Provide both didactic lectures and diverse inpatient and outpatient clinical experiences			
Quality of didactic lectures for preparing trainees to deliver adolescent reproductive services	++	-	-
Inpatient experiences managing adolescent reproductive care	+	-	-
Outpatient experiences managing adolescent reproductive care	+	-	-
Theme 2: Faculty preceptors skilled in caring for adolescents			
Availability of preceptors skilled in caring for adolescent reproductive health	+	-	-
Availability of preceptors comfortable supervising trainees who provide adolescent reproductive health care	+	-	-
Theme 3: Teach skills for engaging adolescents in clinical assessments and decision making			
Teach skills for engaging adolescents at various stages of cognitive development in clinical history taking	++	+	-
Teach skills for engaging adolescents at various stages of cognitive development in counseling and clinical decision making	++	+	-
Theme 4: Train providers to navigate confidentiality issues with adolescents and their caregivers			
Interactions with adult caregivers	++	+	-
Managing confidentiality	++	-	-
Theme 5: Provide infrastructure and resources for delivering adolescent reproductive services			
Clinical care tools (eg, risk screening tools)	++	++	-
Family planning and reproductive health equipment (e.g., bed with stirrups) and supplies (e.g., contraceptive implantable devices)	-	-	++
Providers trained in performing procedure-based family planning options	-	-	++

+++ denotes a major strength of the training experience; ++ denotes an item that is addressed in a limited or inconsistent fashion; - denotes an issue that is absent or where attention is not paid to helping trainees provide quality care among adolescent patients