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Original article

Improving Access to and Utilization of Adolescent Preventive Health Care: The Perspectives of Adolescents and Parents

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Abstract

Purpose: To examine the perspectives of publicly insured adolescents and their parents on ways to encourage adolescent utilization of preventive health services.

Methods: We conducted eight focus groups with 77 adolescents enrolled in a large Medicaid managed care plan in Los Angeles County, California, and two focus groups with 21 of their parents. Discussions were recorded, transcribed, and analyzed using the constant comparative method of qualitative analysis.

Results: Adolescents and parents reported that the most effective way to encourage preventive care utilization among teens was to directly address provider-level barriers related to the timeliness, privacy, confidentiality, comprehensiveness, and continuity of their preventive care. They reported that incentives (e.g., cash, movie tickets, gift cards) might also be an effective way to increase preventive care utilization. To improve adolescent receipt of surveillance and guidance on sensitive health-related topics, most adolescents suggested that the best way to encourage clinician–adolescent discussion was to increase private face-to-face discussions with a clinician with whom they had a continuous and confidential relationship. Adolescents reported that the use of text messaging, e-mail, and Internet for providing information and counseling on various sensitive health-related topics would also encourage adolescent utilization of preventive health services. Parents, however, more often preferred that their teen receive these services through in-office discussions and clinician-provided brochures.

Conclusions: State agencies, health plans, clinics, and individual providers may consider focusing their efforts to improve adolescents' utilization of preventive services on basic structural and quality of care issues related to the clinician–patient relationship, access to services, and confidentiality.

Keywords: Adolescent health services; Preventive health services; Ambulatory care; utilization

National medical organizations recommend routine preventive care for all adolescents [1,2]. Although the recommended frequency of visits may vary across guidelines, from annually to every 3 years, they all reflect the importance of addressing important health behaviors that are often established during adolescence [3]. Adolescent preventive care provides an opportunity for adolescents to receive information, counseling, and guidance regarding critical health-related behaviors that represent many of the major causes of adolescent morbidity and mortality. Decisions about these behaviors may not only influence health during adolescence, but may also have long-term effects on their health as adults. However, a substantial proportion

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of U.S. adolescents does not routinely utilize preventive care [4–7]; utilization may be especially low among African American youth, Latino youth, and youth living in poverty [4–7]. Even when adolescents do attend preventive visits, studies suggest that most of them do not receive many recommended preventive health services, including counseling and guidance on risky health behaviors [8–10].

Adolescents' perspectives on barriers to preventive care visits have been well studied [8,11–16], and several studies have proposed and examined particular strategies to improve preventive care utilization [17–20]. To develop practical strategies for increasing preventive care utilization among economically vulnerable adolescents, we need a rich and broad understanding of what adolescents and their parents think would work.

We sought to examine the perspectives of low-income adolescents on how healthcare organizations and providers can increase preventive care utilization, and to supplement these data on adolescents with the perspectives of their parents.

Methods

Eligibility and recruitment

Two study recruiters attempted to call 1,164 randomly selected households with adolescent Managed Care Medicaid enrollees in a commercial health plan (enrolled continuously for at least 12 months) living within a 15-mile radius of the plan's community resource center (the focus group site). Eligible adolescents (age, 13–17 years) had parental consent to participate and were selected to provide the desired mix of enrollee age, gender, and primary household language (English or Spanish by parent report). Among households contacted, 394 had a disconnected telephone number and 296 could not be reached after $\geq$ 2 attempts. Recruiters successfully contacted 474 households; 209 adolescents declined to participate, and 62 agreed to participate but had schedule conflicts. The remaining 203 were scheduled on a first-come basis until each of the 8 focus groups had at least 10 scheduled participants. Parents of teens who had already participated in a focus group were invited to participate until 24 parents were scheduled for two focus groups.

Teen groups were stratified by gender, age [13–15,16–17 years], and household primary language; parent groups were stratified by household primary language only. We used this stratification to allow teens with varying levels of preventive care utilization to discuss sensitive topics in groups with same-sex peers and to identify specific issues for teens from Spanish primary language households. All teen focus groups were conducted in English (all adolescents spoke English fluently); one parent focus group was conducted in Spanish.

Study procedures

We conducted a review of published data on adolescent preventive health services, and then developed a focus group discussion guide (see Table 1 for general questions; the full discussion guide is available upon request). It included questions to elicit discussion on three major topics: (1) views on and experiences with preventive visits; (2) ways in which health plans, clinics, and clinicians can help to increase adolescent access to and utilization of preventive visits; and (3) strategies that health plans, clinics, and clinicians can use to encourage teens to discuss important health-related topics during preventive visits. Each topic focused specifically on preventive visits. In the beginning of each group, the facilitator described the preventive visit in detail and mentioned that she would be discussing preventive visits only. Participants discussed multiple examples to help them understand the difference between sick and preventive visits; we reinforced their understanding of preventive visits by asking those with a preventive visit to describe it. The focus group discussion guide included general questions used in every group to elicit participants' views, without first offering specific examples. It also included a number of optional ''probes'' or questions to generate discussion in cases when no ideas were brought up, and to obtain parents' views on adolescent-generated ideas. The RAND Human Subjects Protection Committee approved the study.

The focus groups were held in December 2007 and January 2008; each group included 6–12 participants, lasted approximately 2 hours, and was conducted by an experienced, bilingual focus group moderator. Participants completed a brief demographic survey and received a cash honorarium.

Analysis

Sessions were audiotaped, transcribed, translated if in Spanish, and imported into a qualitative data management software program. Two experienced qualitative coders and 2 authors (T.C. and P.C.) read the first two transcripts and created codes for key points within the text. Through an iterative process, these codes were developed into a codebook using standard procedures [21]. The coders then independently coded each transcript consecutively, and discussed discrepancies and modified the codebook (with T.C.). To measure consistency between coders, we calculated a Cohen's kappa [22] using a randomly selected sample (33%) of quotes (independently coded) from each of the major themes. Kappa scores were 82%–92%, suggesting excellent consistency [23].

Next, the research team performed thematic analysis of the 1,067 unique quotations that dealt with the three major topics. The analysis was based in grounded theory and performed using the constant comparative method of qualitative analysis [21,24]. The team identified the most salient themes; these were the concepts and ideas that emerged from the quotes within each topic. Next, we examined each theme, its frequency and distribution, and patterns within and between the groups. Because we aimed for thematic representation, we present not only consensus, but also key dissenting

Table 1
Selected general focus group questions by topic

Topic 1: Views on and experiences with preventive visits
1. Who has gone to the doctor for a regular checkup?
   a. Tell me a little about that. What was it like?
   b. What did you think about the visit when it was over? Would you want to go back to that doctor for your next checkup?
2. Teenagers should have a regular checkup with their doctor each year. What do you think about these regular checkups? Are they necessary? What should happen during these visits?
3. What are some of the reasons that teens sometimes don't go for regular checkups? Are there things that make it hard to go or stop teens from going for regular checkups?

Topic 2: Ways to increase adolescent access to and utilization of preventive visits

Now we would like you to help us think of ways in which doctors and clinics can make it easier for teens to go to their regular checkups.
1. What could be done to make it easier for teens to go in for their checkups?
   What could be done to encourage teens to go in for a checkup?
   What would make a teenager go to the doctor even though it is not easy?
2. Sometimes doctors offer gifts or rewards to patients who come to regular checkups to encourage them to come. We call these incentives. For example, young children are sometimes given things like candy or stickers when they go for regular checkups and this makes them happy to go see the doctor. Do you think that incentives would work to encourage teens to go to doctors for regular checkups? Why or why not?
3. We would like you to help us think of ways to make teenagers excited or enthusiastic about going to the doctor. Let's try to name five ways to make more teens go to doctors for regular checkups.
4. Are there any other things that would make teens go in for a checkup?

Topic 3: Strategies to encourage teens to discuss important health-related topics during preventive care visits

We would like you to think about teens like yourself and tell us what teens think about getting checkups and what kind of information they might want to get from their doctors.
1. Can anyone give me some examples of questions that teens might ask their doctor?
2. What do you think about talking to a doctor about these types of things? Is that something teens feel comfortable talking about with doctors?
   a. What would make you feel comfortable talking to your doctor about these topics? Are there things the doctor could do to help you feel comfortable talking about these sensitive topics?
3. What do you think is the best way to get information from your doctor about these types of questions? Is talking to doctors in person the best way or are there other ways that you would rather get information?
   a. Out of all of these ways to get information from your doctor that we have talked about so far, is there one particular way that you think would work best for you?

views when available to give a more accurate impression of agreement and disagreement among participants.

Results

A total of 77 adolescent enrollees (36 boys and 41 girls) and 21 parents participated. Participant characteristics are detailed in Table 2. Based on utilization data collected by the health plan, 30 teen participants had a preventive visit in the past 12 months; however, during the focus groups, 73% (56 of 77) of teen participants reported a preventive visit in the past 1–2 years.

Topic 1: Views on and experiences with preventive visits

Importance of preventive visits: A focus on physical health as the key element of preventive care. Preventive visits were valued by adolescent participants primarily as a tool to ensure and maintain physical health (Table 3). To many adolescents, this could be largely accomplished through a comprehensive physical examination, which was seen as the central and most important part of the preventive visit. Participants reported that through the physical examination, the clinician could accurately evaluate the teen's physical health. One participant described what should be done in a preventive visit: ''…they could check your muscles, to see if they're fine, or your calcium levels, or test your blood or something.''

Parents' perceptions of the importance of well-visits were similar to the teens' perspectives in that they also focused on physical health (''they're necessary for their vaccinations, they take blood, check for anemia, check their cholesterol…''). However, parent participants also recognized the importance of visits for screening for risky behaviors (''[preventive visits are important] because we don't know if tomorrow they're going to be taking drugs behind closed doors'').

Experiences with preventive visits: Brief doctor–patient time leads to few opportunities for effective doctor–patient communication during visits. Participants provided a description of their most recent preventive visit. Most teens described the physical examination in great detail, but had very little to describe in terms of clinician–adolescent communication or discussion of any particular health-related issues (Table 3). Most reported that they had not had such discussions during their most recent preventive visit. One participant described her experience: ''He just checks my weight, my height, and stuff, and asks when your last period was and all that. And then he checks your heart and stuff, writes it down, and then kind of says, 'Okay, you're good.' He gives the opportunity to ask [questions], but he doesn't say, 'Do you have any questions,' he's just kind of, 'Okay, if you want to ask, just do it.' But I don't, because he's old.''

Parents' experiences were similar. One mother described a recent well-visit for her daughter: ''But they didn't ask her

Table 2
Adolescent and parent participant characteristics

	% (n)
Adolescent participant characteristics (n = 77)	
Gender	
Female	53 (41)
Male	47 (36)
Age	
13–15	48 (37)
16–17	52 (40)
Race/ethnicity	
Non-Latino African American	13 (10)
Non-Latino Asian	10 (7)
Latino	60 (46)
Non-Latino white	18 (14)
Education level*	
Currently enrolled in secondary school	93(67)
High school graduate/GED	7 (4)
Some college	1 (1)
Household Language	
Spanish	53 (41)
English	47 (36)
Parent participant characteristics (n = 21)	
Gender	
Female	95 (20)
Male	5 (1)
Parent age*	
36–45	58 (11)
46–55	37 (7)
57	5 (1)
Highest level of education completed	
Less than high school completion	43 (9)
High school/GED	20 (4)
Some college	33 (7)
4-year college degree	5 (1)
Marital status*	
Never married	10 (2)
Married	35 (7)
Living with partner	25 (5)
Separated, divorced, or widowed	30 (6)
Household language	
Spanish	48 (10)
English	52 (11)

* Five adolescents did not provide education level; two parents did not provide age, one parent did not provide marital status.

anything private, or like, 'Do you want me to have your parents step out of the room?' They didn't really go into [that].''

Barriers to preventive visits: Adolescents described reasons why teens do not attend preventive visits. These were system, teen, and clinician-level factors, including a lack of transportation, excessive waiting room times, inadequate time spent with the clinician, poor clinician–patient relationship, and lack of perceived confidentiality and privacy (Table 3). Participants also cited a lack of knowledge on the necessity of visits: ''maybe teens really feel like they don't need a regular checkup 'cause they think their body's fine.'' Parents reported many of these same barriers, focusing on waiting room times and poor clinician–patient relationships.

Topic 2: Ways to increase adolescent access to and utilization of preventive visits

The best way to encourage preventive visits is to provide patients with a good, continuous relationship with a clinician who respects their time and confidentiality (Table 4). One teen explained why a good experience with a preventive visit might encourage a teen to return: ''[The best incentive is]…just having a good experience at the checkup before. It won't be a problem coming back because it's like something positive.''

Structural changes that improve adolescents' experience accessing and receiving care can increase the likelihood that teens will return for annual visits (Table 4). These changes included the following: (1) reducing the amount of time spent waiting (''you [should be able to] go in there, your paperwork is ready. All right, he's ready to see you. Boom, you're out''), (2) increasing the amount of time with the doctor (''the doctor [should] spend more time with you and talk to you about issues and things''), (3) having the same doctor at each visit (''they could give you a doctor you've already had so they can make it more comfortable for you''), and (4) assuring the patient of confidentiality (''[if I were the doctor,] I would be like 'I'm not going to tell nobody,' and they'll keep it between you and them'').

Incentives, though not necessary, may be a successful way to get teens to utilize preventive visits (Table 4). Across all groups, adolescents suggested various incentives including cash ($5–$20), movie tickets, and retail-store gift cards. Some participants had other ideas including iTunes gift cards, condoms, and raffle tickets for larger prizes like concerts, iPods, or cell phones.

Parents described several elements of the doctor–patient relationship, including effective communication and provider continuity, as important ways to increase adolescent access to and utilization of preventive care. Parents also reported that small incentives, such as gift cards, would be successful in increasing utilization of well-visits. In addition, they suggested the use of reminder calls or post-cards (''there's something my dentist does which is to send me a letter…to remind me if you forgot your annual checkup''), extended office hours (''having the flexibility to close a little later… because people work and the children go to school''), and decreased waiting time to get an appointment (''I have to schedule it so far in advance…after three months I forget I made the appointment'') as ways to improve adolescent use of well-visits.

Topic 3: Strategies to encourage teens to discuss important health-related topics during preventive visits

Providing teens with confidential face-to-face discussions with a provider they have a continuous relationship with is the best way to encourage teens to discuss sensitive topics with their providers (Table 5). This was described by one

Table 3
Views on and experiences with preventive care

A. Importance of adolescent preventive care: Focus on physical health as the key element of preventive care

Boys, ages 13–15 years, English

…Like, I think if you go get a checkup from a doctor, that they should really check you up-check, like I don't like my check-ups to last five minutes, and then go home. I'm just really cautious about them checking me really over, 'cause my Mom has cancer.

Girls, ages 16–17 years, Spanish household

Yeah, I agree with what she said… because you might be sick with something, for example leukemia and you don't know about it. So it's better I think if you go every year you might know that you have it so there could be something that could cure it.

Parents, Spanish

I'm always on the ball with them [well-visits] because there's a predisposition to diabetes in my family. So I think that it's necessary to go regularly, because maybe even though she looks fine she might not be very healthy.

B. Experiences with preventive care visit: Brief doctor-patient time leads to few opportunities for effective doctor-patient communication during visits

Girls, ages 13–15 years, Spanish

My mom always goes in with me too. And yeah, they used to check my blood pressure and my shots… Only once when they asked my mom to get out of the room because I had to do a heart checkup, I think. So yeah, I had to get undressed. But I was… it was okay.

Girls, ages 16–17 years, English

I was just going to say like there's a lot of bad communication, and it's just like being interviewed. Just like question after question. Just like, "When was the last time you were here?" "What are you here for?" "Now I'm going to check your blood pressure." [And that's it] unless me or my mom like have a specific question or something specific.

Parents, Spanish

Parent 1: *The wait is very long and for what? To only be seen for like 15 minutes like he said and that's it. … An hour or so while you wait for [the doctor] and the nurse… And, and well, the doctor comes in for five minutes, checks here, checks there.*

Parent 2: *Yeah, that's true. Same with my kid's doctor. You wait a very long time and then in five, no, I'm lying, maybe ten minutes he checks him out and then that's it.*

C. Barriers to preventive care

Transportation

Boys, ages 16–17 years, English

I'd say transportation. I don't have transportation… [I] Have to ask someone, like my sister. But they'd have to go out of their way. My mom works until very late and even if she were to take me, the clinic closes early and she wouldn't be able to take me after work. [The bus….]well, that's what I won't do. It's too far and it takes too long.

Waiting Time

Girls, ages 16–17 years, English

My doctor's horrible with time. I literally waited, my last checkup, was two and a half hours waiting in the room, with a called-in appointment, and then I got in the room, and I waited another hour. And all I got was a shot.

Parents, English

The waiting period is so long. I mean, you have an appointment at nine o'clock and you're sitting there until twelve o'clock.

Time with provider

Girls, ages 16–17 years, Spanish

Yeah, it's like you wait forever. When I go to the doctor I wait I would say for about an hour. And then I go inside into the actual room. I wait there like for 20 minutes. The doctor comes for like three minutes, leaves and that's it. And we're done, yeah.

Boys, ages 16–17 years, English

Sometime when you go to the doctor, like, say around afternoon, and stuff, they're already tired, and when they see you, they're like, "Aah." And they really don't pay attention to you and it seems like they just give you a few minutes and they're out the door.

Dissenting view: boys, ages 16-17 years, English

It's better if you have a quick doctor that you know is going to just get you in and get you out.

Provider-patient relationship

Boys, ages 16-17 years, English

My doctor just makes me feel like business. Like it's in and out and doesn't really spend time with you. Its just business and they may not take time to really talk to you. You're in and out.

Parents, Spanish

…they don't have time for us, no, like our kids don't deserve it… The attention, to give them half an hour, twenty minutes—to examine them like they should.

Parents, Spanish

Yeah, I ask [my teenager why he doesn't want to go to the doctor] and he says, "I don't like that doctor anymore," he says, "Because he's very, I mean he's real rude when you ask him things."

Dissenting view: boys, ages 13–15 years, English

But my doctor, the one I have really makes me feel comfortable, he asks me questions and just is really cool and really, you know, respects what I have to say and doesn't laugh or make me feel, you know, like I don't know anything. When I ask him questions he gives me straight answers.

Privacy/confidentiality

Girls, ages 16–17 years, English

I don't feel like there's so much privacy inside hospitals. So then like if they find out, or if they test me, and I'm pregnant, or if I have an STD or whatever, then like where does my privacy go? They're going to call my parents, they'll totally freak out, I'll get kicked out and stuff like that. And they start flipping. So they become insecure, and they won't tell anyone, so they just like end up becoming runaways, I guess.

Dissenting view: parents, English

Now they have a woman doctor that really listens or she does ask questions, and I mean she'll sit down on their level, "Okay, what's going on with you?" And things he wouldn't tell me he would tell the doctor.

Table 4
Ways to increase adolescent access and utilization of preventive care

A. Adolescents reported that the best way to encourage preventive care use was to provide patients with a good, continuous relationship with a clinician who respected their time and confidentiality.

Boys, ages 13–15 years, English.

…like they don't need to be giving you anything for you to go get a, a checkup for your own health. Like—it's not their health; it's not nobody else but your health, so you shouldn't be getting a reward for letting them check your body for free. Because you know that's already a big reward there, just getting a free checkup and having someone to talk to.

Parents, Spanish

Look, for me the priority is that they're nice. The other stuff that they might give them would be extra, but for me it's understanding, that they attend to us well.

B. Structural changes that improve adolescents' experience accessing and receiving care can increase the likelihood that teens will return for annual visits

(1) Reducing the amount of time they have to wait in the waiting room

Boys, ages 16–17 years, English

And just coming in the doctor's office, and then waiting for like two hours in the waiting room, and then going in, and then waiting for another half an hour, and then the doctor seeing me. And then, she does a checkup and then gives me some medicine, and then like prescribes me some medicine. And then I come out, and then I have to pay 20 bucks. I feel like I'd rather just not go to the doctor at all, you know?

Parents, Spanish

It should be quicker… so that they don't get two hours behind…

(2) Increasing the amount of time patients can spend with the doctor

Boys, ages 13–15 years, English

That if you go get a checkup that the doctor should sit there and really talk about like, like really talk about your checkup and like if you ask him questions to get like, like to be there for you and like answer your questions.

Dissenting view: boys, ages 13–15 years, English

Yeah it did seem like it was only five minutes, but now that I think about it, I wouldn't want it to be any longer than that. I wouldn't want—I wouldn't want to go out of there and be like, oh, I'm so happy that it was so long.

(3) Having the same doctor at each visit

Girls, ages 16–17 years, Spanish

Sometimes it might take time too though, because the doctor… if you barely meet somebody and you're supposed to open up to them, you might not open up that same day. It might take even a few hours if you're that fast into trusting somebody. It might take days or weeks or maybe months.

(4) Assuring the teen of confidentiality

Boys, ages 16–17 years, English

I think if they told us, like straightforward that they wouldn't tell our parents, if we had any personal questions that we don't want our parents to know about. If they told us that they'll keep it confidential, we would feel more confident in telling them and asking them questions.''

Boys, ages 13–15 years, English

Or, or is it that, that some teens just want to like, when they go get a checkup, maybe they just want to go by themselves, cause they don't want their parents to know, 'oh, I'm going to get a checkup'. Cause some parents—like my Mom—get mad. My Mom, if I told her, 'I'm going to some medical clinic, you know, get a checkup; 'what you getting a checkup for'? 'What are you doing?' Like they just start judging you like, they start like—…And immediately they get all, You know? 'What's wrong with you? What are you doing?' It's just, like on your back about it, so— They [parents] *interrogate more than a policeman.*

C. Both teens and parents reported that incentives and gifts, though not necessary, would be a successful way to get teens to utilize preventive visits

Girls, ages 16–17 years, English

Moderator: *Okay, what types of things could be raffled off?*
Adolescent 1: *iPods.*
Adolescent 2: *Cell phone.*

Girls, ages 13–15 years, English

Moderator: *What are some other incentives that they might be able to give out?*
Adolescent: *Concert tickets, raffles, concerts… little gifts here and there.*

Parents, English

Well, like when you have a co-payment, pay them to go. Give them $5. They'll be more than happy to get down there to the doctor.

Dissenting View: Boys, ages 16-17, Spanish

I got one of those in the mail a month ago. It said you could go to the doctor for a checkup, they'll give you like a $20 gift card. But I still didn't go. I wanted the $20— I was just too lazy…. they should offer $75. I would have gone.

D. Other suggested changes.

Girls, ages 16–17 years, English

[To make it easier for teens to get to the doctor, clinics could] *have like a…like you call your clinic* [and ask] *'You guys think you could pick me up?' And like the clinic, yeah… the clinic provides transportation. That would be pretty tight, too.*

Boys, ages 16–17 years, English

Adolescent 1: [In the clinic waiting room] *They have a lot of magazines, but not a lot of kids our age* [like] *to read magazines and stuff while we're waiting for something. Especially stuff on like diabetes magazines and that stuff. I would like videos and games to be there or they should have magazines that we like to read.*

Adolescent 2: *Like music videos, stuff like that.*

Adolescent 3: *Video games…like PS Tour or something*

Girls, ages 13–15 years, English

Also because you know how like on BET or MTV they have the AIDS commercial and Alicia Keys comes out and says, 'Oh, go get tested,' and different types of artists come out. So maybe [Health Plan Name] *can get some celebrities, 'Oh yeah, I go to* [Health Plan Name], *this and that. Make sure you guys go get checked out' or whatever and they rap about it or whatever, sing about it.* [Health Plan Name] *is hosting Chris Rock, this and that. I'd be like oh yes, Chris Rock is going to the clinic.*

Table 5
Ways to encourage teens to discuss important health-related topics during well-visits

A. To encourage discussion of sensitive topics with their providers, most teens favored confidential face-to-face discussions with a provider they had a continuous relationship with.

They focused on four elements of the doctor-teen relationship to encourage teens to discuss sensitive topics with providers:

(a) Provider Continuity

Boys, ages 13-15, English

Yeah. Maybe you just want to talk to your doctor about something personal and you don't want your parents to know. But my doctor, the one I have really makes me feel comfortable, he asks me questions and just is really cool and really, you know, respects what I have to say and doesn't laugh or make me feel, you know, like I don't know anything. When I ask him questions he gives me straight answers.

(b) Relationship and Rapport-Building

Girls, ages 16-17, English

I think sharing personal experiences. Like if they have children, say they're sexually active, and share their experiences with their children, and how they opened up to them, and told them. I think that would make it more comfortable.

Boys, ages 13-15, Spanish

Give examples of how they were when they were like us…..Yeah. They could say, when I was your age, I was curious about these sorts of things: Are you curious?

(c) Confidentiality

Boys, ages 13-15, English

It's not, it's not a problem that they tell my parents because eventually, I tell my parents everything. But, like, the reason why I tell you is because I'm not ready to tell them yet, but then they just go and tell them anyway, and they just bring up the issue and I think other teens might also have this problem and that's reason, like he said, that they might not ask doctors questions they have because they're worried about parents finding out.

(d) Privacy (time in visit without parent present, provider-initiated)

Girls, ages 16-17, Spanish

The doctor's supposed to ask… have a certain quality time with teens, and for the parents to step out of the room. Just for a conversation, not to check anything. When the doctor's going to check something, then the mother should be in there, but if it's just like a one-on-one conversation and it's personal, I think the mother should leave.

Parents, English.

Well I started thinking afterwards that yeah, because he's a man and I'm a woman. So even if I'm uncomfortable I have to respect my son and realize that even if I want to know everything he talks with his doctor I can't and I have to respect that. And his doctor never tells me what they talk about.

Dissenting view: Boys, ages 13-15, English

By phone. 'Cause I don't like really talking to doctors like face-to-face.

B. Technology-driven tools (including text messages, MySpace, and instant messaging) can also be used to encourage discussion of sensitive topics, and to augment risky health behavior screening and counseling outside of the face-to-face office visit.

Girls, ages 16-17, English

…your doctor's not always there 24/7. And I mean, if you e-mail, you have more likely of a chance of figuring out what's wrong with you, and you don't feel uncomfortable talking to someone you don't know, because you're not talking directly to them, you're talking to someone who has a degree and knows what they're doing, but you don't have the-for me-insecurity of saying, 'Oh my god, this person's going to judge me.' And also, if your doctor goes on vacation, and you can't see your normal doctor, then it's just really uncomfortable to tell your whole story to someone else in order for them to understand, and then by the time your doctor comes back, you know, you finally figure out what's wrong with you, when you could've just texted or e-mailed or called on the phone.

Girls, ages 13–15, English

MySpace… [what if] there's a link to [Health Plan Name] and perhaps you might have a chat room with a doctor from [Health Plan Name]. And then you can like make a profile if you want to, a [Health Plan Name] profile. That would be so cool.

Girls, ages 13–15, English

Adolescent 1: *I think that would be a good idea, the chat line on the internet for doctors.*

Adolescent 2: *A lot of people do AIM [AOM Instant Messaging] and all that stuff.*

Adolescent 1: *Dr. AIM.*

Girls, ages 16–17, Spanish

Oh yeah, I'd want it to be more private. Yeah because somebody might be able to hack into your MySpace and actually read the messages and stuff.

Parents, English

Yeah, I don't want to have a doctor just texting or e-mailing my son. I want to filter the stuff. I only have until he's 18, and so I'd prefer to filter it.

Parents, Spanish

Parent 1: *Like [Health Plan Name]'s site, for example. A [Health Plan Name] …website would be good… Then because if I see they'd have a separate web site I'd be more comfortable.*

Parent 2: *There'd be pages on it that said [Health Plan Name]*

Parent 1: *… that open email, but if I see she's talking, that it's a, that the site is from [Health Plan Name] then yes I'd feel more comfortable…And she's reading something that I know will be good for her health…*

participant who wanted a better relationship with his clinician: ''They [the patient and doctor] should have like a little relationship, like a little kind of friendship…because I know people who actually talk to their doctors, and tell them everything. I think you've got to have that relationship to feel comfortable.''

Four elements of the doctor–teen relationship are critical to encouraging teens to discuss sensitive topics with providers: (a) provider continuity, (b) relationship and rapport-building, (c) confidentiality, and (d) privacy (time in visit without parent present). For provider continuity, teen participants reported that it was easier to talk with

a clinician that they knew and with whom they had a professional relationship (''they don't even know you and you just may not feel comfortable asking them questions that are more private''). For relationship and rapport-building, participants reported that clinicians should try to make a personal connection with the teen (''I think a doctor should come in and not interview you, but talk to you…. You want someone that will be able to connect with you in a way so that way you'll feel comfortable…not feel like you're being investigated for murder or something''). Confidentiality and privacy were also important; many participants asserted that it was the clinician's responsibility to provide assurances of confidentially and private time to talk without the parent present (''I think that when they're talking about stuff like that, as far as HPV, that the doctor should at least let the parent step out'').

Technology-driven tools (including text messages and MySpace) can also be used to encourage discussion of sensitive topics, and to augment risky health behavior screening and counseling outside of the face-to-face office visit (Table 5). These tools were generally viewed as viable options for receiving information and counseling on sensitive health-related topics. For many, these options provided greater convenience and anonymity, and fewer hassles than an in-office visit with the clinician. One participant reported that in using these technology-based tools, some teens ''probably feel more comfortable, because maybe some people are shy … They might feel like face-to-face with their doctor they'll get intimidated.'' Another explained why MySpace would be useful: ''I bet if there's 100 students on MySpace and…a doctor posted a bulletin about information, about at least say 75–80 will probably reply to the message. I guarantee you because a lot of kids which are embarrassed or something and they don't want to speak on something.'' Some teens also wanted additional assurances that their communication would be strictly confidential (e.g., password-protected communications).

Parents described the importance of the clinician–patient relationship (continuity, rapport, communication) in encouraging teens to discuss sensitive topics during well-visits. Although some parents supported the use of the internet as a tool to provide sensitive health information to adolescents, there were many who did not. Many were concerned about lack of parental control over what information their children received through the Internet, and preferred information to be provided in a form they could more easily access (i.e., mailed or in-office brochures). Some described the importance of private child–clinician time during well-visits (''So that she has the confidence, so she doesn't have that doubt, 'What if somebody finds out?'''), whereas other parents expressed more ambivalence about ''private time'' (''In a way I'm comfortable with it, but then I'm not'').

Discussion

Adolescents and their parents reported that the most effective way to encourage preventive care utilization among adolescents was to directly address the multiple barriers they faced in using care. They reported that this could be accomplished by providing adolescents with timely, private, confidential, and comprehensive preventive visits with a clinician with whom they have a continuous relationship. Additionally, adolescents and parents endorsed several other ways to encourage adolescent utilization of preventive care, including the use of patient incentives. Finally, adolescents cited four elements of the doctor–patient relationship (continuity, rapport, confidentiality, and privacy) as well as various technology-driven tools (internet, text messaging, social networking websites) that could improve the delivery of important sensitive health information to adolescents; not all of these were supported by parents.

Our findings on barriers to adolescent well-visits are supported by findings from previous studies that have examined adolescent-reported barriers to accessing and using general health care services. In a previous study of 10th graders, the major barriers to receipt of health services included anxiety, poor access, and the perception that care was not needed [12]. In another study, 9th graders rated clinicians' interpersonal skills and confidentiality as highly important to utilization [13,25]. In addition to these provider characteristics, we also found that structural barriers to care (e.g., waiting room times, provider continuity) that apply specifically to clinical settings were important to teens.

Few published studies have examined adolescent perspectives on the use of patient incentives for encouraging adolescents to utilize preventive services. A 1997 systematic review of published data on financial patient incentives found that small incentives may be a cost-effective way to improve patient compliance [26]. Another review of interventions to improve adult preventive care found that the most consistently effective interventions were organizational changes and financial incentives [27]. In the focus groups, adolescents and parents were supportive of incentives and thought that they would be effective in encouraging teens to attend well-visits. The use of patient incentives for adolescent well-visits has not been formally evaluated in the clinical literature; however, they have been used by various health plans with reported success [28].

Researchers have begun to examine the utility of technology-based tools as a way to improve adolescent preventive care [19,20]. Our findings suggest that many of these tools (e.g., social networking websites, text-messaging) would be well-received by adolescents and potentially useful in improving the delivery of preventive services; however, we also found some discrepancy between the views of adolescents and parents on this topic. In a previous study, parents of adolescents reported that health care providers could use information technology to share adolescent health information with parents [29].

There are multiple drawbacks to using technology-based tools as an aid in the delivery of preventive care, including privacy concerns, access issues, and costs. However, to provide adolescents with comprehensive care, we may need

to incorporate these tools frequently utilized by teens. Through the Birds and the Bees Text Line, a service of the Adolescent Pregnancy Prevention Campaign of North Carolina, teens can ''anonymously'' text in their questions about sex and get an answer (including referrals for more complicated concerns) by cell phone text-message within 24 hours [30].

Child and parent perspectives are an important part of developing strategies to improve both preventive and general health services. These perspectives have been elicited and used for health care services for the general pediatric age range, and for younger children specifically [13,29,31–34], as well as for health service evaluation tools, and development of primary care interventions and systems of care [35–40]. Although our study focused on the perspectives of adolescents, we were able to augment our data with perspectives from parents. The areas of agreement between adolescents and parents included the importance of the doctor–patient relationship, use of incentives, and structural changes to care. Adolescents placed much more emphasis on confidentiality and privacy as critical ways to encourage utilization of care, and on the use of technology-based tools for the discussion of sensitive health-related topics.

This study has limitations that should be considered when interpreting our findings. Because we were mainly interested in the perspectives of adolescents, we focused our resources on 8 adolescent focus groups, and only conducted 2 parent groups. However, we believe that the small number of parent focus groups serves to enrich our findings from adolescents. Next, our sample was limited to enrollees in one health plan with Managed Care Medicaid enrollees in one geographical area; it is possible that their perspectives may be very different from a sample of enrollees from different plans in other areas. Moreover, a large proportion of the sample either could not be contacted or refused to participate, reducing our ability to generalize findings. Finally, we focused on a limited number of strategies to improve preventive care utilization among adolescents; there are others (e.g., school-based clinics), which were not covered in detail in the focus groups because of an effort to limit the length of the focus group discussions.

Despite its limitations, our study provides important information that can be used by researchers, health plans, clinics, health care professionals, and state Medicaid agencies to increase preventive care utilization among adolescent Medicaid beneficiaries. Health care delivery organizations can assure patients of confidentiality and privacy by implementing protocols for office staff to describe patient confidentiality and privacy procedures to parents and adolescents before the visit, including visit time without the parent. Researchers should investigate the effectiveness of technology-based tools to provide preventive services (and not just for screening or reminders) and investigate the use of patient incentives to encourage utilization. Current reimbursement systems and clinician incentives for preventive care may not support many of the improvements that adolescents say would encourage them to attend preventive visits (e.g., more time with the provider); alternative reimbursement strategies should be investigated to fully support adolescent preventive care utilization. Finally, our findings suggest that attention to basic quality issues (timeliness, continuity, confidentiality, patient-centeredness) may be one of the most important ways to improve preventive care utilization for this population of adolescents; providing all adolescents preventive care within a medical home is one way to reach this important goal.

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Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.jadohealth.2010.01.005.

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