Discussion of Potentially Sensitive Topics With Young People

John S. Santelli, MD, MPH,[a,b] Jonathan D. Klein, MD, MPH,[c,d] Xiaoyu Song, DrPH,[e,f] Jennifer Heitel, MPH,[a] Stephanie Grilo, MA,[g] Mengru Wang, MS,[h] Hanying Yan, MS,[h] Kristen Kaseeska, MPH,[d] Julie Gorzkowski, MSW,[d] Madeline Schneider, MPH,[a] Alexandra E. Dereix, MPH,[a] Marina Catallozzi, MD, MSCE[a,b,i]

abstract

OBJECTIVES: To identify modifiable factors that facilitate discussion of potentially sensitive topics between health care providers and young people at preventive service visits after Patient Protection and Affordable Care Act implementation.

METHODS: We used data from a national internet survey of adolescents and young adults (13–26 years old) in the United States. Questionnaire construction was guided by formative research and Fisher's Information-Motivation-Behavioral Skills model. Those who had seen a regular health care provider in the past 2 years were asked about 11 specific topics recommended by national medical guidelines. Four multivariable regression models were used to identify independent predictors of discussions of (1) tobacco use, (2) drug and/or alcohol use, (3) sexually transmitted infections or HIV, and (4) the number of topics discussed.

RESULTS: Fewer than half of young people reported having discussed 10 of 11 topics at their last visit. Predictors were similar across all 4 models. Factors independently associated with health discussions included the following: ever talked with a provider about confidentiality (4/4 models; adjusted odds ratio [aOR] = 1.85–2.00), ever had private time with a provider (1 model; aOR = 1.50), use of health checklist and/or screening questionnaire at last visit (4 models; aOR = 1.78–1.96), and time spent with provider during last visit (4 models). Number of years that young men had seen their regular provider was significant in 1 model. Other independent factors were positive youth attitudes about discussing specific topics (3/3 models) and youth involvement in specific health risk behaviors (3/3 models).

CONCLUSIONS: Discussions about potentially sensitive topics between health care providers and young people are associated with modifiable factors of health care delivery, particularly provider explanations of confidentiality, use of screening and/or trigger questionnaires, and amount of time spent with their provider.

[a]*Heilbrunn Department of Population and Family Health, Departments of* [g]*Sociomedical Sciences and* [h]*Biostatistics, Mailman School of Public Health, Columbia University, New York, New York;* [b]*Department of Pediatrics, Vagelos College of Physicians and Surgeons, Columbia University, New York, New York;* [c]*Department of Pediatrics, College of Medicine, University of Illinois, Chicago, Illinois;* [d]*Julius B. Richmond Center of Excellence, American Academy of Pediatrics, Itasca, Illinois;* [e]*Department of Population Health Science and Policy, and* [f]*The Tisch Cancer Institute, Icahn School of Medicine, Mount Sinai, New York, New York; and* [i]*Morgan Stanley Children's Hospital, New York-Presbyterian Hospital, New York, New York*

WHAT'S KNOWN ON THIS SUBJECT: Discussions about sensitive health issues are important opportunities for health promotion for adolescents and young adults. Current US national surveillance systems do not collect data on the prevalence of adolescent and young adult–provider discussions or the factors associated with these discussions.

WHAT THIS STUDY ADDS: We identify health care provider, youth, and health system factors independently associated with youth-provider discussions; these include previous discussions of confidentiality, use of health checklist and/or screening questionnaires, and increasing length of the office visit.

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Preventive care visits involving screening and counseling between providers and young patients present opportunities for health promotion and disease prevention, including for sensitive topics and preventable risky behaviors.[1] Effective preventive services include immunizations, screening and treatment of sexually transmitted infections (STIs), and provision of reproductive and sexual health services, including contraception.[1–3] Discussions of sensitive health topics, which include behavioral screening and counseling, can address risk behaviors such as tobacco, alcohol, and drug use; injury prevention; depression and mental health; sexual behaviors; and obesity and physical activity where biomedical interventions are not available or where both behavior change and biomedical interventions are needed. Using rigorous evidence standards, the US Preventive Services Task Force (USPSTF) has endorsed behavioral screening and counseling with young people for STIs, HIV, tobacco, alcohol, and obesity.[3]

The Patient Protection and Affordable Care Act (ACA) requires that prevention services are provided without cost sharing and requires that health insurance includes coverage for prevention services[4] recommended by the USPSTF,[3] the Health and Human Services–Health Resources Services and Administration Bright Futures guidelines,[1] and the Advisory Committee on Immunization Practices.[2]

Before implementation of the ACA, fewer than half of adolescents had annual preventive care visits, and many did not receive recommended preventive services.[5–8] Importantly, national health monitoring systems on adolescent health are not able to demonstrate change before and after ACA implementation, as systems such as the Medical Expenditure Panel Survey[5] and the National Health Interview Survey or National Survey of Children's Health[8] do not capture the preventive counseling recommendations from Bright Futures or the more limited list from the USPSTF (STIs, HIV, tobacco, alcohol, and obesity). These systems rely on parents' reports for receipt of services and they do not collect data on discussion of sensitive health behaviors. (The Medical Expenditure Panel Survey does ask parents about healthy eating and physical activity.) Likewise, the National Youth Risk Behavior Survey and Behavioral Risk Factor Surveillance Survey do not routinely measure receipt of clinician counseling or discussion of sensitive topics.

Professional guidelines regarding adolescent preventive care recommend that youth have access to confidential services,[9] including private time between adolescents and health care providers.[1,6] Private time with a clinician and assurances of confidentiality may facilitate discussion of sensitive health topics.[10] However, young people report that health care encounters often do not include an explanation of confidentiality by their health care provider.[9] When confidentiality is not assured, adolescents may forego care altogether or fail to disclose risk behavior involvement.[6,10] Other factors that may facilitate provider-youth discussions include adequate time for dialogue during a visit and the use of screening or trigger questionnaires before a young person and health care provider meet.[11,12]

With this study, we examined modifiable factors associated with the discussion of potentially sensitive health topics between health care providers and young people during preventive care visits. We use the term "potentially sensitive," because young people may differ in the topics they perceive as sensitive. We hypothesized that provider explanations of confidentiality, provision of private time, longer preventive service visits, and the use of screening questionnaires would increase discussions about potentially sensitive issues between providers and young people.

METHODS

This study was conducted as part of the research agenda of the Adolescent Health Consortium, a collaboration to improve preventive health care for young people between the American Academy of Pediatrics, American Academy of Family Physicians, American College of Obstetricians and Gynecologists, and the Society for Adolescent Health and Medicine.

Sampling and Data Collection

We surveyed a nationally representative sample of adolescent and young adults (AYAs) (13–26 years of age) regarding clinical preventive services and discussions with their health care providers. The survey completion rate was 65% (n = 1918). These analyses are limited to young people (n = 1509; 79% of respondents) who had seen their regular provider in the past 2 years. Questions about discussions of potentially sensitive topics were asked only of those who had seen a provider in the previous 2 years. We used a 2-year window to increase statistical power and because not all specialty societies recommend annual visits.

Potential respondents were sampled from a pre-enrolled online panel (the KnowledgePanel, maintained by the market research firm GfK). The GfK panel is a household sampling frame via both random digit dialing and address-based sampling to recruit a representative sample of the US adult population. Since 2009, GfK has used addressed-based sampling methods from the US Postal Service, providing full coverage of all delivery points in the United States and sampling from all households, regardless of their phone or internet status.[13] This probability-based sampling methodology improves population coverage, particularly for hard-to-reach individuals, including

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young adults and minority subgroups. This recruitment strategy includes households with listed and unlisted telephone numbers and those that do not have landline telephones. Households without internet connections were provided with Web-enabled devices and free internet service. Potential panel members were not recruited if they could not speak English or Spanish. Census blocks with high-density minority communities were oversampled,[13] and data were weighted to reflect the demographic composition of the US population by using the 2015 Current Population Survey (CPS).[14] KnowledgePanel has been used in previous academic publications about children and adolescents.[15]

GfK's adjusted sampling is based on a "probability-proportional-to-size" procedure to select study-specific samples. Once a study sample has been selected and fielded and survey data are cleaned, design weights are adjusted for any differential nonresponse. Final analysis weights are produced by using an iterative proportional fitting (raking) procedure to ensure that the resulting weights are aligned with all study benchmark distributions simultaneously. This adjusts the data so that groups underrepresented in the sample can be accurately represented in the final data set. In a final step, the calculated weights are examined to identify and, if necessary, trim or cap outliers at the extreme upper and lower tails of the weight distribution. The survey was offered in English and Spanish; 7.2% of adolescents (13–19 years old) and 3.1% of young adults (20–26 years old) completed surveys in Spanish.

Ethical Approval

Our protocol was reviewed by institutional review boards at the Columbia University Irving Medical Center, the University of Illinois at Chicago, and the American Academy of Pediatrics. Young adults were members of the online panel; adolescents were recruited through parents' panel enrollment by using GfK protocols. Youth and parents provided informed consent or assent, and parents provided permission for the participation of minor adolescents. Participants received Knowledge Network bonus points (worth ~$5.00) and were entered into a drawing for additional incentives.

Questionnaire Construction and Validity of Adolescent Self-report

Questionnaire construction was guided by formative research and Fisher's Information-Motivation-Behavioral Skills model.[16] Survey questions incorporated language from previously implemented nationally representative surveys[17–20] and input from research advisors to the Adolescent Health Consortium (questionnaire available from authors). Formative research involved focus groups with pediatricians and family physicians, young people, and parents in which we explored attitudes and experiences regarding clinical preventive services, confidentiality, and private time.

Self-report of receipt of clinical preventive services by AYAs has been demonstrated to be both reliable and valid.[21,22] Compared with audiotape recordings of a specific preventive services visit, self-report of behavioral screening and counseling by AYAs (14–21 years of age) was found to be moderately or highly sensitive and specific, both at 2 weeks and at 6 months post. A test-retest research design study of adolescent reliability in reporting on receipt of clinician counseling demonstrated that adolescents from age 14 are as reliable in reporting clinician counseling as they were in reporting their own behaviors.[22]

Dependent and Independent Variables

Dependent variables included (1) the number of topics discussed at the last visit and discussion of (2) tobacco use, (3) drug and alcohol use, and (4) STIs or HIV. The latter 3 topics were selected as highly salient health behaviors and/or outcomes of importance to morbidity and mortality in adolescence and across the life span. AYAs were asked "At your last visit, did your regular healthcare provider talk with you about any of these topics?" This question followed a series of questions about the regular health care provider.

Key independent variables included whether their regular provider had previously talked about confidentiality, if youth had ever had a private conversation with their regular provider, whether young people completed a health checklist or questionnaire at their last checkup, the length of time spent with their provider at their last visit, provider sex, how long young people had been seeing their regular provider, and youth attitudes toward discussing tobacco use, drug and alcohol use, and STIs and HIV, grouped into "very or somewhat important," "neither important nor unimportant," and "very or somewhat unimportant."

Other independent variables included sociodemographic information (age, race, ethnicity, sexual orientation) as reported by young people. Residence in a metropolitan statistical area (urban or suburban communities) and household income were reported by young adults or parents (on previous Knowledge Network surveys). Youth behavioral involvement questions were used to assess past 30-day use of tobacco, binge drinking in the past 30 days, and ever having had oral, vaginal, or anal sex.

Statistical Analysis

Demographic characteristics of the GfK sample and CPS are described in Table 1. Weighted percentages by age group for youth-provider discussions at a last visit of 11 specific topics were calculated (Table 2). Multivariate analyses included survey linear regression models for

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TABLE 1 Demographic Characteristics for GfK (2016) and CPS Samples (2015), United States

	GfK Sample of Young Women (n = 762)	CPS Sample of Young Women	GfK Sample of Young Men (n = 747)	CPS Sample of Young Men
Age, y				
13–14	222 (16.0)	3944 (16.0)	216 (17.6)	4078 (16.2)
15–18	299 (31.3)	8214 (33.4)	330 (36.0)	8506 (33.7)
19–22	96 (24.5)	6355 (25.8)	66 (22.3)	6781 (26.9)
23–26	145 (28.2)	6117 (24.8)	135 (24.1)	5855 (23.2)
Race and ethnicity				
Non-Hispanic White	458 (55.2)	16 099 (54.1)	464 (56.1)	16 689 (54.5)
Non-Hispanic African American	68 (15.3)	4300 (14.4)	56 (12.9)	4246 (13.9)
Other and/or multiple races, non-Hispanic	60 (9.6)	2881 (9.7)	63 (9.3)	2789 (9.1)
Hispanic	176 (19.9)	6495 (21.8)	164 (21.7)	6925 (22.6)
Sexual orientation				
Straight	685 (90.7)	NA	706 (94.3)	NA
Not straight or do not know	77 (9.3)	NA	41 (5.7)	NA
Residence				
Rural	100 (15.6)	NA	77 (12.5)	NA
Urban or suburban	662 (84.4)	NA	670 (87.5)	NA
Household income, $				
<25 000	132 (14.5)	5016 (16.8)	120 (13.5)	4567 (14.9)
25 000–$49 999	161 (22.0)	6160 (20.7)	125 (18.8)	6059 (19.8)
50 000–$74 999	132 (15.8)	5159 (17.3)	152 (19.0)	5552 (18.1)
75 000+	337 (47.8)	13 440 (45.1)	350 (48.7)	14 471 (47.2)

Data are presented as n (%). NA, not available.

continuous outcomes for the number of topics discussed at last visit (Table 3) and survey logistic regression models for discussion of tobacco use, drug and alcohol use, and STIs or HIV (Table 4). Multivariate (either linear or logistic) regression were used to identify independent predictors of these 4 outcomes. Demographic variables were retained in all models to control for these influences within models; variables on health care providers, attitudes, and behavioral involvement were retained only if significant, given some covariation among these nondemographic variables. Analyses were initially stratified by sex. Because models for young women and men were similar, unstratified models are reported in the article. Sex-stratified models are available in Supplemental Information.

RESULTS

Survey Sample Compared With the Population of Young People in the United States

With Table 1, we provide data on 1509 young people in our survey who had seen a regular health care provider in the past 2 years (79% of our 1918 survey respondents). Our sample closely matches the demographic composition of the United States by age, race and/or ethnicity, and income of families with an adolescent (13–18 years of age) at home and for all young adults in the CPS (Table 1).

Youth-Provider Discussions by Topic and Age

Table 2 provides data on youth-provider discussions about 11 specific topics. For 10 of 11 topics, less than half of young people reported a discussion on that topic with a health care provider at their last visit. The most commonly discussed topics overall included mental health and/or emotional issues (55%), drug or alcohol use (46%), tobacco use (44%), and school performance (43%). The least commonly discussed topics were gun safety (14%), sexual orientation (20%), and sexual or physical abuse (21%). Rates of discussion were similar by sex except for discussions about birth control, which was higher among young women and increased sharply with age among young women (26% at ages 13–14 to 54% at ages 23–26) but not among young men (13% at ages 13–14 to 12% at ages 23–26; data not shown). Discussions varied by age, with some topics decreasing with age (school, injury prevention, friends, sexual and physical abuse, sexual orientation, gun safety), some increasing (methods of birth control), and some peaking in the later adolescent and early young adult period (ages 15–22 years; drug or alcohol use, tobacco use, STIs or HIV).

Variables Associated With Youth-Provider Discussions

With Table 3, we examine the number of potentially sensitive topics discussed at a last visit, stratified by demographic and health care system factors; Table 3 also identifies which of these factors were independently associated with the number of topics discussed, using linear regression to adjust for demographic factors and other significant health care system factors.

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TABLE 2 Percentage of Health Care Providers Discussing Specific Topics With AYAs (United States, 2016)

	AYAs	Adolescents		Young Adults		Differences by Age, *P*
	All (*n* = 1509)	13–14 y (*n* = 438)	15–18 y (*n* = 629)	19–22 y (*n* = 162)	23–26 y (*n* = 280)	
Mental health and emotional issues (eg, stress, anxiety)	828 (55)	246 (57)	353 (58)	92 (55)	137 (49)	.214
Drug or alcohol use	667 (46)	172 (42)	306 (51)	76 (48)	113 (42)	.071
Tobacco use (eg, smoking, chewing, vaping)	638 (44)	174 (43)	288 (49)	73 (46)	103 (36)	.024
School performance or grades	740 (43)	284 (67)	368 (61)	53 (33)	35 (14)	<.001
STIs and HIV	472 (35)	107 (26)	219 (38)	63 (39)	83 (32)	.035
Methods of birth control	428 (33)	81 (19)	190 (33)	68 (41)	89 (35)	<.001
Injury prevention (eg, wearing helmets, seatbelts)	502 (30)	199 (47)	236 (40)	36 (22)	31 (13)	<.001
Friends	475 (27)	191 (41)	229 (39)	31 (19)	24 (9)	<.001
Sexual or physical abuse	325 (21)	100 (26)	160 (27)	31 (19)	34 (13)	<.001
Sexual orientation (eg, being gay or straight; gender identity)	287 (20)	92 (24)	134 (23)	31 (19)	30 (12)	.006
Gun safety	239 (14)	92 (21)	119 (21)	14 (8)	14 (5)	<.001

All responses regarding specific topics are based on the following question: "At your last visit, did your regular health care provider talk with you about any of these topics?" Data are presented as *n* (%). Differences by age were tested by using the survey-weighted χ^2 test.

Young women reported discussing an average of 3.7 of 11 topics at their last visit; young men reported discussing an average of 3.6 topics. The mean number of youth-provider discussions declined with age from 4.1 at ages 13 to 14 and 4.4 at ages 15 to 18 to 2.6 at ages 23 to 26. White youth discussed 3.3 topics at the last visit, and Hispanic and African American youth discussed 4.2 topics; these were not significantly different after adjustment for other factors. Rural youth reported fewer discussions (2.7 topics) compared with urban or suburban youth (3.8 topics). Discussions about potentially sensitive topics were less common in the highest income category (3.6 topics were discussed if household income was >$75 000 versus 4.2 topics discussed if household income was <$25 000). In the sex-stratified analyses (Supplemental Table 5), this association was even stronger for young men (3.4 vs 4.7 topics) but absent among young women (3.7 vs 3.7 topics).

Three health care provider and/or system factors were independently associated with the number of topics discussed: ever having discussed confidentiality with a provider, having received a health checklist and/or questionnaire at the last visit, and the length of the last visit (time spent with the provider). Youth who reported having ever talked about confidentiality with their provider discussed 4.4 topics versus the 2.9 topics discussed among youth who had not talked about confidentiality. In the sex-stratified analyses (Supplemental Table 5), the length of time seeing a health care provider was statistically significant for young men (4.0 topics at 10+ years versus 3.3 topics at <2 years; $P < .05$) but not for young women (3.9 vs 3.5 topics, respectively).

Table 4 is used to examine discussions of 3 specific topics at a last visit: discussion of tobacco, drugs and alcohol, and STIs or HIV. Patterns of association with demographic and health care provider and/or health care system factors were similar to those in the model regarding the total number of topics. Young women and men did not differ in rates of discussions. Discussion of all 3 topics peaked between ages 15 and 22 years and then declined. Urban and suburban youth were more likely to engage in discussion of these topics.

Three health care provider and/or system factors were consistently associated with discussion of all 3 topics: ever having discussed confidentiality with a provider (adjusted odds ratio [aOR] = 1.85–2.00), having completed a health checklist and/or trigger questionnaire at their last visit (aOR = 1.78–1.96), and the amount of time spent with the provider (aOR = 2.46–3.09 for 30+ vs <10 minutes). Additional independent predictors for discussing these 3 topics were youth attitudes that these discussions were somewhat or very important versus very or somewhat unimportant (aOR = 2.64–3.40) and behavioral involvement in tobacco use or binge drinking in the last 30 days or ever having had sex (aOR = 1.88–2.47). We found few significant differences in the separate models by sex (Supplemental Tables 6 through 8).

DISCUSSION

Youth-provider discussion of potentially sensitive health topics is associated with health care provider practices. Young people who reported ever having talked about confidentiality with their regular provider were more likely to engage in health discussions with providers. Likewise, the use of a health checklist and/or questionnaire and having spent more time with their provider during the visit were consistently associated with more of these discussions. Discussions also appear to be influenced by youth attitudes about the discussion of sensitive topics and youth involvement in health risk behaviors. Overall, in 2016 after the implementation of the ACA,

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TABLE 3 Number of Potentially Sensitive Topics Discussed at Last Visit With AYAs (n = 1503; United States, 2016)

	No. Topics Discussed (out of 11 Possible Topics)			Independent Predictors	
	Total	Weighted Mean	SD	β	P
Demographic characteristics					
Sex					
Male	747	3.6	3.5	.00	Reference
Female	762	3.7	3.4	.07	NS
Age, y					
13–14	438	4.1	3.7	.00	Reference
15–18	629	4.4	3.7	−.03	NS
19–22	162	3.5	3.2	−1.16	***
23–26	280	2.6	2.7	−1.95	***
Race and ethnicity					
Non-Hispanic white	922	3.3	3.1	.00	Reference
Non-Hispanic African American	124	4.2	3.8	.35	NS
Other and/or 2+ races, non-Hispanic	123	3.8	3.5	.34	NS
Hispanic	340	4.2	3.9	.26	NS
Sexual orientation					
Straight	1391	3.7	3.4	.00	Reference
Not straight or do not know	118	3.9	3.6	.03	NS
Residence					
Rural	177	2.7	2.9	.00	Reference
Urban or suburban	1332	3.8	3.5	.95	***
Household income, $					
<25 000	252	4.2	3.9	.00	Reference
25 000–49 999	286	3.9	3.8	−.35	NS
50 000–74 999	284	3.4	3.2	−.63	NS
≥75 000	687	3.6	3.2	−.65	*
Health care provider and health care system					
Ever discussed confidentiality with provider					
No or do not know	822	2.9	3.3	.00	Reference
Yes	687	4.4	3.5	1.43	***
Ever private conversation with provider					
No or do not know	838	3.4	3.5	—	—
Yes	671	3.9	3.4	—	—
Sex of provider					
Male	720	3.5	3.5	—	—
Female	766	3.9	3.4	—	—
Do not know	20	2.9	3.5	—	—
Length of time with provider, y					
2	468	3.4	3.4	—	—
2–9	473	3.7	3.4	—	—
10+	485	4.0	3.6	—	—
Do not know	78	4.0	3.5	—	—
Health checklist and/or questionnaire received at last visit					
No or do not know	700	2.8	3.2	.00	Reference
Yes	806	4.3	3.5	1.14	***
Time spent with health care provider at last visit, min					
<10	172	2.7	3.3	.00	Reference
10–19	593	3.4	3.3	.56	NS
20–29	397	4.1	3.4	1.10	**
30+	216	4.8	3.7	1.80	***
Do not know	127	3.0	3.3	.44	NS
Overall	1509	3.7	3.4	—	—

We used survey linear regression model for continuous outcome. β coefficients adjusted for all other variables in the model. Demographic variables were retained in each model. Health care provider and system variables were not retained in models unless significant. NS, not significant; —, not in model.

* $P < .05$; ** $P < .01$; *** $P < .001$.

less than half of young people reported discussions about 10 of 11 potentially sensitive topics, including tobacco use, drug and alcohol use, or STIs or HIV at their last visit.

Our findings regarding health care providers and the health care system have important implications for future prevention efforts. Across our 4 multivariable models, factors related to regular health care providers and the health care system were commonly independent predictors of youth-provider discussions. These included having talked about confidentiality with a provider, use of a health checklist or questionnaire at the last visit, and the length of the last visit; each was significant in all 4 models. These factors are amenable to changes in provider practices and the organization of health systems.

Discussion of confidentiality is an essential part of health care for adolescents. Previous research has demonstrated that when AYAs are not assured of confidentiality, they are less willing to discuss sensitive topics with their providers.[6,23,24] Discussion of confidentiality is closely related to the experience of private time (ie, time alone with a provider without parents in the room); initial discussion of confidentiality may occur during private time with a regular health care provider. Consistent with national guidelines,[1,9] providers should begin to discuss confidentiality with adolescent patients and with parents in early adolescence. Clinicians should recognize that parents need to understand the importance of confidentiality and private time and should work with families so they support this transition in the adolescent-provider relationships.[25] Providers should begin to bring up the importance of confidentiality and private time with patients and their parents at an earlier age so that when the adolescent turns 13 and this idea

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TABLE 4 Youth-Provider Discussion of Specific Topics at Last Visit With AYAs (United States, 2016)

	Tobacco Use (n = 1463)				Drug or Alcohol Use (n = 1494)				STIs and HIV (n = 1481)			
	Total	% Who Had Discussion	Independent Predictors		Total	% Who Had Discussion	Independent Predictors		Total	% Who Had Discussion	Independent Predictors	
			OR	*P*			OR	*P*			OR	*P*
Demographics												
Sex												
Male	747	46	1.00	Reference	747	47	1.00	Reference	747	33	1.00	Reference
Female	762	42	0.84	NS	762	46	0.89	NS	762	36	0.82	NS
Age, y												
13–14	438	43	1.00	Reference	438	42	1.00	Reference	438	26	1.00	Reference
15–18	629	49	1.03	NS	629	51	1.30	NS	629	38	1.10	NS
19–22	162	46	0.58	*	162	48	0.73	NS	162	39	0.56	*
23–26	280	36	0.38	***	280	42	0.58	*	280	32	0.39	***
Race and ethnicity												
Non-Hispanic white	922	44	1.00	Reference	922	45	1.00	Reference	922	28	1.00	Reference
Non-Hispanic African American	124	47	0.88	NS	124	52	0.98	NS	124	44	1.04	NS
Other and/or 2+ races, non-Hispanic	123	41	0.87	NS	123	43	1.00	NS	123	35	0.98	NS
Hispanic	340	43	0.66	*	340	49	0.84	NS	340	44	0.91	NS
Sexual orientation												
Straight	1391	44	1.00	Reference	1391	46	1.00	Reference	1391	34	1.00	Reference
Not straight or do not know	118	43	0.97	NS	118	46	1.04	NS	118	38	0.94	NS
Residence												
Rural	177	36	1.00	Reference	177	38	1.00	Reference	177	21	1.00	Reference
Urban - suburban	1332	45	1.64	*	1332	48	1.58	*	1332	37	1.66	*
Household income, $												
<25 000	252	45	1.00	Ref	252	46	1.00	Ref	252	43	1.00	Ref
25 000–49 999	286	45	0.95	NS	286	47	1.04	NS	286	35	1.07	NS
50 000–74 999	284	41	0.88	NS	284	44	0.95	NS	284	35	1.02	NS
≥75 000	687	44	0.84	NS	687	47	0.97	NS	687	32	1.06	NS
Health care provider and health care system												
Ever discussed confidentiality with provider												
No or do not know	822	34	1.00	Reference	822	36	1.00	Reference	822	24	1.00	Reference
Yes	687	54	1.85	***	687	56	2.00	***	687	44	1.87	***
Ever private conversation with provider												
No/do not know	838	37	1.00	Reference	838	39	—	—	838	28	—	—
Yes	671	50	1.50	*	671	52	—	—	671	40	—	—
Sex of provider												
Male	720	44	—	—	720	45	—	—	720	33	—	—
Female	766	45	—	—	766	48	—	—	766	36	—	—
Do not know	20	24	—	—	20	41	—	—	20	31	—	—
Length of time with provider, y												
<2	468	42	—	—	468	46	—	—	468	34	—	—
2–9	473	45	—	—	473	47	—	—	473	38	—	—
10+	485	45	—	—	485	46	—	—	485	31	—	—
Do not know	78	46	—	—	78	49	—	—	78	36	—	—

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TABLE 4 Continued

	Tobacco Use (n = 1463)				Drug or Alcohol Use (n = 1494)				STIs and HIV (n = 1481)			
	Total	% Who Had Discussion	Independent Predictors		Total	% Who Had Discussion	Independent Predictors		Total	% Who Had Discussion	Independent Predictors	
			OR	P			OR	P			OR	P
Health checklist and/or questionnaire received at last visit												
No or do not know	700	33	1.00	Reference	700	35	1.00	Reference	700	22	1.00	Reference
Yes	806	52	1.78	***	806	55	1.79	***	806	43	1.96	***
Time spent with health care provider at last visit, min												
< 10	172	32	1.00	Reference	172	34	1.00	Reference	172	25	1.00	Reference
10–19	593	42	1.50	NS	593	45	1.49	NS	593	31	1.33	NS
20–29	397	49	1.91	*	397	49	1.78	*	397	40	1.53	NS
30+	216	54	2.46	**	216	62	3.09	***	216	47	2.67	***
Do not know	127	30	1.24	NS	127	32	1.34	NS	127	19	1.24	NS
Attitudes toward discussing tobacco, drugs and alcohol, and STIs and HIV, respectively												
Very or somewhat unimportant	164	24	1.00	Reference	144	23	1.00	Reference	155	20	1.00	Reference
Neither important nor unimportant	289	25	1.02	NS	259	30	1.36	—	281	17	1.15	NS
Very or somewhat important	1050	51	3.32	***	1100	52	3.40	***	1068	40	2.64	***
Behavioral involvement in tobacco use and binge drinking over the past 30 d or ever had sex, respectively												
No	1346	43	1.00	Reference	1338	43	1.00	Reference	1089	30	1.00	Reference
Yes	125	58	1.88	*	165	63	2.47	***	399	42	2.16	***
Overall	1509	44	—	—	1509	46	—	—	1509	35	—	—

Percentages of those who discussed each topic are weighted but not adjusted. We used survey logistic regression; each model adjusted for all other variables in the model. Demographic variables were retained in all models. Health care provider and system variables were not retained in models unless significant. NS, not significant; OR, odds ratio; —, not in model.

* $P < .05$; ** $P < .01$; *** $P < .001$.

is put into practice parents and adolescents are not surprised.

Providers and health care systems can regularize the use of checklists or questionnaires during preventive visits to screen health conditions and behaviors and to trigger discussion of health risk behaviors. Efforts to promote longevity in the relationship between young people and providers may be particularly important for young men, although this is complicated by the mobility of youth, changes in insurance coverage, and aging out of pediatric practices.

Preventive visits for young people should be scheduled to provide adequate time for discussions with providers. Of course, this may be incongruent with economic pressures on health care providers to see more patients during clinic sessions. Moreover, preventive care for adolescents may be more complicated than visits for younger children, given the number of health and social issues that may need to be addressed, the sensitivity of health issues at this age, and the need to engage both parents and young people in discussions. Professional guidelines support the need for private time and talking about confidentiality.[1] Interviewing parents and adolescents separately and explaining confidentiality to both takes time during often busy clinical sessions.

We found that about half (54%) of young people reported completing a health checklist or questionnaire at their last visit. Although it is relatively easy to use checklists in the office, it is more difficult to develop procedures to systematically respond to the issues and behaviors that youth report. Our data suggest that these screening checklists should be used to assess both youth preferences for discussing specific topics as well as health conditions and risk behaviors.

Our findings are broadly consistent with intervention research used to improve access to preventive

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services.[26–28] Clinician-focused strategies such as screening questionnaires and decision-support tools are effective, particularly when integrated with electronic medical records and supported by clinician training and feedback.[27,28] Interventions to make health care facilities more adolescent friendly and information campaigns in communities, schools, and mass media that encourage young people to discuss their health needs ("demand generation") can increase discussion of sensitive topics such as sexual and reproductive health.[27] State policy interventions associated with improved delivery of prevention services to young people include expanding provider capacity, medical home policies, quality improvement projects, and enhancing consumer awareness of well visits.[29] Vaccination programs for young people can also create opportunities to promote discussion on other health issues.[30] Private time and confidential care can promote discussion of health risks between adolescents and providers[10,31] and increase provision of sexual and reproductive health services.[23,24]

Recent studies suggest the ACA has increased insurance coverage and access to care particularly among young adults with the greatest health care needs.[32] Both of these would be expected to increase access to preventive care. Our study could not address trends over time in youth-provider discussions since the implementation of the ACA, because we found no published studies with measures directly comparable to our measures. However, although access to care may have increased since the implementation of the ACA, these data suggest that the content of care often is not meeting professional recommendations.

Although we believe this article is a valuable addition to the literature, we note several limitations. The first are related to sampling. Our data are cross sectional and therefore cannot demonstrate causality. Sample coverage and response bias are inherent in the methods used to develop a nationally representative cohort.

Second, we used self-reported data. It is suggested in previous research that adolescent self-report of health care services is generally valid and reliable.[21,22] However, there may be underreporting of risk behaviors because adolescents were interviewed directly after parents, using the same computer.

The third set of limitations is related to the survey questions that were asked. We explored discussions on sensitive topics at a last visit with one's regular provider; these visits included preventive services visits, brief visits, and acute care visits. However, the considerable use of clinical checklists suggests that many of these visits were focused on prevention. Although discussions of sensitive topics are appropriate at any visit, they presumably occur less commonly when dealing with acute problems, except when the acute problem is related to a sensitive topic. Although we measured the occurrence of youth-provider discussions, we did not measure the quality or impact of these conversations. Additionally, even at a preventive health visit, certain topics may not be relevant for all adolescents, and given limited time, providers may focus on topics that are salient for the individual adolescent.

Finally, because we did not interview health care providers, we cannot measure time pressures or provider-level barriers to providing preventive care. Further research should ask specifically about provider-level barriers to providing preventive care to better understand their impact.

CONCLUSIONS

In this study, discussions between young people and health care providers during preventive visits were influenced by modifiable factors within health care delivery systems, including talking about confidentiality, providing private time with young people during office visits, using health screening questionnaires, and assuring enough time for youth and health care providers to interact. Providers caring for young people and their families need support to implement these changes in health care practices, including education about the importance of talking about confidentiality and private time.

ABBREVIATIONS

ACA: Patient Protection and Affordable Care Act
aOR: adjusted odds ratio
AYA: adolescent and young adult
CPS: Current Population Survey
STI: sexually transmitted infection
USPSTF: US Preventive Services Task Force

Dr Santelli conceptualized and designed the study, participated in design of the questionnaire, conceptualized the analyses for this article, outlined data analyses, drafted the manuscript, and reviewed and revised each version of the manuscript; Drs Klein and Catallozzi conceptualized and designed the study, participated in design of the questionnaire, and reviewed and revised the manuscript; Dr Song participated in the design of the questionnaire and supervised all data analyses, which were conducted by Ms Wang and Ms Yan; Ms Heitel, Ms Kaseeska, Ms Gorzkowski, and Ms Schneider managed the process of scientific input from the National Advisory Committee, participated in design of the questionnaire, helped conceptualize this article, and reviewed and revised the manuscript; Ms Grilo and Ms Dereix made substantial contributions to the analyses, drafted sections of the manuscript, contributed to the interpretation of study findings, and reviewed and

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edited the final manuscript; and all authors participated in team discussions of data analyses, interpretation, and implications and approved the final manuscript and are accountable for its scientific findings.

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Address correspondence to John S. Santelli, MD, MPH, Heilbrunn Department of Population and Family Health, Mailman School of Public Health, Columbia University, 60 Haven Ave, B3 Room 310, New York, NY 10032. E-mail: js2637@columbia.edu

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