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Provider Facilitation of Parent-Adolescent Health Communication: Findings From a National Survey

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Abstract

Introduction: Primary care providers are well-positioned to facilitate parent-adolescent health communication. We examined provider-facilitated parent-adolescent health communication prevalence and associations with parent-adolescent health communication.

Method: Using data from a national survey of parent-adolescent dyads (n = 853), we calculated the prevalence of provider-facilitated parent-adolescent health communication about 11 topics as a result of adolescent's last preventive visit. We examined correlates of of provider-facilitated parent-adolescent communication and associations with with parent-adolescent communication.

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Conflicts of interest: None to report.

Results: Eighteen percent of adolescents reported that a provider helped them talk with their parent about a health concern, with little variability by adolescent, parent, or provider characteristics. Prevalence of parent-adolescent communication because of an adolescent's last preventive visit ranged between 38.4% and 79.5%. Provider facilitation was positively associated with parent-adolescent communication for all topics.

Discussion: Given the low prevalence of provider-facilitated-parent-adolescent health communication and positive associations between provider facilitation and parent-adolescent communication about multiple important health-related topics, efforts to improve this practice could be beneficial.

Keywords

Preventive care; provider-facilitated communication; parent-adolescent communication

INTRODUCTION

Parent-adolescent communication is a protective factor for adolescent health, positively influencing a range of behaviors related to sexual and reproductive health (Aspy et al., 2007; Martino et al., 2008; Sionéan et al., 2002; Widman et al., 2016), substance use (Kelly et al., 2002; Miller-Day & Kam, 2010; Spirito et al., 2015), and mental health (Brown, 2020; Reardon et al., 2017). However, this type of communication can be challenging, as many parents report lacking knowledge, skills, or confidence to discuss sensitive health topics with their adolescents (Ashcraft & Murray, 2017; Guilamo-Ramos et al., 2019; Jones et al., 2021; Koren, 2019; Miller-Day & Dodd, 2004). Moreover, evidence suggests that adolescents are less willing to have these conversations if parents seem uncomfortable or uninformed about the subject (Ford et al., 2011). Adolescents also need encouragement (Ford et al., 2011; Jaccard & Levitz, 2013) and specific communication skills to broach sensitive health topics with their parents (Ford et al., 2011).

Primary care providers (PCPs) are well-positioned to support parent-adolescent communication about sensitive health topics (Ford et al., 2009; Ford et al., 2011; McKee et al., 2011). Although time alone between adolescents and providers is recommended to allow for confidential discussions about sensitive issues, practice guidelines also encourage PCPs to appropriately engage parents in conversations about adolescent health (Ford et al., 2004; Hagan et al., 2017). In addition, parents express a continued desire to remain involved in their adolescent's health care (Ford et al., 2009; Ford et al., 2011; McKee et al., 2011; Pampati et al., 2019). PCPs must thus balance supporting adolescent confidentiality while also engaging parents in the context of high-quality primary care. Facilitating and encouraging healthy parent-adolescent communication may be one approach to achieving this balance (Ford et al., 2011). For example, PCPs can encourage adolescent patients to speak with their parents about health concerns and facilitate these conversations when needed (Ford et al., 2004; Ford et al., 2011). As another example, PCPs can provide parents with information on health topics and help them build communication skills with their adolescents (Ford et al., 2011). Studies suggest that parents are interested in receiving information and help with skills from their adolescent's provider (Ford et al., 2016; Jones et al., 2021; Mehus et al., 2022). These strategies align with a triadic framework that

recognizes the value of parents as partners in adolescent health care (Dittus, 2016; Ford et al., 2009; Ford et al., 2011; Ford et al., 2016; Guilamo-Ramos et al., 2020; Guilamo-Ramos et al., 2021).

Despite a growing body of literature regarding triadic relationships between adolescents, parents, and providers (Ford et al., 2009; Ford et al., 2011; Ford et al., 2016; Guilamo-Ramos et al., 2020; Helitzer et al., 2011; Jones et al., 2021), there are limited empirical data on provider-facilitated–parent-adolescent health communication and outcomes of this practice. This study addressed the following questions using data from a national sample of adolescents and their parents: (1) What is the prevalence of provider-facilitated–parent-adolescent health communication and parent-adolescent health communication across various health-related topics because of the adolescent's last preventive visits? (2) What adolescent, parent, and provider characteristics are associated with provider-facilitated–parent-adolescent health communication associated with parent-adolescent communication about health-related topics resulting from preventive visits?

METHODS

Sampling

This study analyzes data from a national online survey to better understand adolescent receipt of confidential sexual health services. The data collection occurred in June 2019, when 1,005 U.S. adolescents aged 11–17 years and their parents were surveyed regarding attitudes and experiences with adolescent clinical preventive services, focusing on sexual and reproductive health services. Parents were sampled from an existing online panel (KnowledgePanel maintained by the research firm Ipsos; Ipsos, n.d.) constructed using dual frame sampling (random-digit dialing and address-based sampling) to obtain a probability-based sample of U.S. households. KnowledgePanel has about 60,000 members, and email invitations were sent to 2,495 members (Ipsos, n.d.). Interested panel members completed an eligibility screener (n = 1,234). Parents of a child aged 11–17 years who could read English or Spanish were eligible to complete the survey. Parents with multiple children aged 11–17 years were instructed to answer questions about their adolescent with the most recent birthday, who then became eligible for participation. To be included in this analysis, adolescents had to report having a preventive visit in the past 2 years (n = 853).

Parents provided consent for themselves and their participating adolescents before the start of the parent survey. Adolescents provided assent before completing their survey. The sample was weighted to represent the noninstitutionalized U.S. adolescent population by age, gender, race/ethnicity, census region, metropolitan status, household income, and language proficiency. More detailed sampling methods are described elsewhere (Sieving et al., 2021). This research was approved by the Institutional Review Boards at the University of Minnesota and Columbia University.

Measures

Survey items were based on the existing literature, clinical guidelines, and our prior research (Grilo et al., 2019; Hagan et al., 2017; Marcell & Burstein, 2017; Santelli et al., 2019). We cognitively tested items with children aged 11-14 years (n=7) and pretested the survey with parent-adolescent dyads (n=27) before the study was launched.

Independent variables—Provider-facilitated—parent-adolescent health communication, as reported by adolescents, was assessed using a single item: Has a provider ever helped you talk with your parents about health concerns you might have? (response options, yes or no).

Dependent variables—Parent-adolescent communication about 11 health and health services topics because of the adolescent's last preventive visit was assessed on the basis of the parent report. Specifically, parents were asked, "Did you and [adolescent's name] talk about the following topics as a result of their last preventive visit?" (response options examined in this analysis included: mental health problems [such as depression or anxiety], substance use [such as alcohol, tobacco, vaping, marijuana, or other drugs], safe dating, whether or not to have sex, sexually transmitted infections [STIs] and HIV, expectations around using birth control, sexual orientation [e.g., being attracted to boys or girls], "gender identity [whether someone's sex at birth matches the way they think or feel about their gender]). Health services topics included: where to get sexual and reproductive health services (such as getting birth control or testing for STIs), having time alone with a provider, and confidentiality. Possible responses for each topic were yes, no, or I don't remember. For this study, we dichotomized responses as yes or no/I don't remember.

Covariates—Adolescent characteristics and attitudes examined included sex, age, race/ethnicity, adolescent-parent relationship satisfaction, and trust in provider to keep sexual health information private, which were adapted from existing surveys (Add Health—https://addhealth.cpc.unc.edu/; NSSHB—nationalsexstudy.indiana.edu). Each characteristic was adolescent-reported. Adolescents' satisfaction with their parental relationship was assessed with a single item: "Overall, I am satisfied with my relationship with my parents," which was measured on a 5-point Likert scale with response options ranging from strongly agree to strongly disagree. To manage skewed data and facilitate interpretation, this measure was dichotomized as strongly agree/somewhat agree versus neither agree nor disagree/somewhat disagree/strongly disagree. Adolescents also agreed with the item, "I can trust my provider to keep my sexual health information private/confidential," using the same Likert scale. Again, we dichotomized responses as strongly agree/somewhat agree versus neither agree nor disagree/somewhat disagree/strongly disagree.

Parents reported their demographic characteristics, including age, sex, race/ethnicity, and education level. Parents also reported their level of agreement/disagreement with the following statement: "My child's healthcare provider helps me feel like a partner in my child's care." This variable was dichotomized as previously described. The research firm provided information on parents' areas of residence (rural vs. nonrural).

The adolescent's regular provider characteristics included gender and race/ethnicity as reported by adolescents and provider type (e.g., pediatrician, family doctor, nurse

practitioner) as reported by parents. Adolescents also reported how long they had been seeing their regular provider.

Data Analysis

We calculated descriptive statistics for provider-facilitated—parent-adolescent health communication, parent-adolescent communication about each health-related topic resulting from the adolescent's last preventive visit, and the covariates of interest. Logistic regression models were used to assess bivariate associations between adolescent, parent, and provider variables and provider-facilitated—parent-adolescent health communication. Finally, we used multivariable logistic regression models to examine associations between provider-facilitated—parent-adolescent health communication and parent-adolescent communication about each health-related topic because of the adolescent's last preventive visit. Separate models were run with a discussion of each topic as the outcome, controlling for adolescent sex, age, race/ethnicity, adolescent-parent relationship satisfaction, parent age, parent gender, and parent education. Missing data were excluded in the logistic analyses using list-wise deletion. All analyses were weighted per parent-adolescent dyad and conducted using Stata (version 15).

RESULTS

The mean age of adolescent participants included in our sample (n = 853) was 14.0 years (standard error of the mean = 0.08), and more than half (50.7%) were female. Most identified as non-Hispanic White (52.4%), followed by Hispanic (24.2%), non-Hispanic Black (13.5%), and other (i.e., Asian, American Indian, Native Hawaiian or Pacific Islander, or other race; 10.0%). About three-fifths of adolescents (59.6%) agreed they trust their provider to keep sexual health information private. Almost all adolescents (91.5%) agreed they were satisfied with their relationship with their parents. The mean age of parents was 44.2 years (standard error of the mean = 0.3), and slightly more than half were mothers (53.8%). Nearly all parents (91.9%) agreed that their adolescent's provider makes them feel like a partner in their adolescent's health care. Slightly more than half of the providers were female (59.4%), non-Hispanic White (63.3%), and pediatricians (65.4%; Table 1).

Fewer than one in five (18.9%) adolescents reported that a provider had helped them talk about a health concern with their parents. Prevalence of parent-adolescent communication resulting from the adolescent's last preventive visit (reported by parents) for adolescents who report receiving provider-facilitated communication ranged from 25.4% for gender identity to 52.8% for mental health. Prevalence was greater than 30% for seven other topics, including substance use (41.7%), the confidentiality of adolescent services (40.7%), STIs (36.1%), safe dating (31.3%), and contraception (31.1%). Prevalence of parent-adolescent communication for adolescents who reported having received provider-facilitated communication ranged from 12.1% for where to get sexual and reproductive health services to 26.7% for mental health (Figure)

Few adolescent, parent, and provider characteristics were associated with having a provider facilitate parent-adolescent health communication. Compared with adolescents who were dissatisfied with their relationship with parents, those who were satisfied with their

relationship with parents reported lower odds of provider facilitation of parent-adolescent health communication (odds ratio [OR] = 0.47; 95% confidence interval [CI], 0.25–0.90; Table 2). In addition, adolescents who reported seeing their regular provider for between 1 and 2 years had lower odds of provider-facilitated–parent-adolescent health communication (OR = 0.42; 95% CI, 0.19–0.94) compared with adolescents who reported seeing their provider for less than 1 year.

In multivariable analyses, provider-facilitated–parent-adolescent health communication was positively associated with parent-adolescent communication resulting from the adolescent's last preventive visit for all 11 health-related topics examined (Table 3). Adjusted ORs ranged from 1.96 (95% CI, 1.23–3.13) for communication about substance use to 3.25 (95% CI, 2.06–5.11) for mental health.

DISCUSSION

Professional guidelines encourage health care providers to facilitate parent-adolescent health communication as appropriate (Hagan et al., 2017), but there is limited published research regarding this practice. This study found positive associations between provider facilitation of parent-adolescent communication at any point and parent-adolescent health communication resulting from the adolescent's last preventive visit. Although we do not know if this is a causal relationship, especially given the timing of these measures is not aligned, this positive association supports clinical guidelines that promote provider facilitation. Even if provider-facilitated discussions did not occur during the last preventive visit, prior experiences of provider facilitation primed parents or adolescents to leverage the last visit for health-related conversations. Similarly, as the measure of provider facilitation is general, providers who facilitate conversations about issues other than sexual and reproductive health (SRH) could also have indirect benefits for communication about SRHspecific topics. These potential pathways warrant further exploration. Despite the potential value of provider facilitation, we also found that fewer than one in five adolescents had a provider help them talk with their parents about a health concern, suggesting a need for improvement. Prevalence of parent-adolescent communication about health-related topics resulting from the last preventive visit was also low, ranging from 15% to 32%, depending on the topic.

Our findings indicate that adolescents report having provider-facilitated—parent-adolescent health communication is associated with increased parent-adolescent communication about various health-related topics following a preventive visit. Several potential explanations for these positive associations would align with professional guidance (Ford et al., 2004; Hagan et al., 2017). Providers may introduce sensitive health topics when parents and adolescents are together and directly facilitate communication during a clinical encounter (Hagan et al., 2017). Provider facilitation may also be less direct and occur when providers interact only with adolescents or parents (Ford et al., 2004). Such facilitation may involve providing adolescents or parents with the information, skills, and confidence to communicate with one another after the clinical encounter (Miller et al., 2020). For example, providers may encourage adolescents to speak with parents about sensitive health topics during time alone and provide adolescents an opportunity to practice initiating these discussions (Ford et

al., 2004). Alternatively, or in addition, providers may interact with parents individually and provide talking points or strategies for discussing sensitive health topics with their adolescents (Ford et al., 2009).

The low prevalence of provider-facilitated-parent-adolescent health communication observed in our study suggests a need to identify factors associated with this practice to inform improvement efforts. In our study, the only significant correlates of having experienced provider-facilitated-parent-adolescent health communication were how long an adolescent had been seeing their regular provider and satisfaction with their parental relationship. Adolescents satisfied with their parental relationship were less likely to report provider-facilitated communication. This finding is somewhat divergent from prior research suggesting that challenging parent-adolescent relationship dynamics can be a barrier to provider engagement with the parent-adolescent dyad (Kim & White, 2018; Sieving et al., 2020). Potential explanations for further exploration include that providers prioritize facilitating parent-adolescent conversations when they perceive parent-adolescent relationship dynamics are more challenging or that teens are more likely to ask for a provider's assistance when they do not feel they can initiate discussions about sensitive topics with their parents on their own. Potential barriers we did not examine in this study include time constraints and tensions with maintaining adolescent confidentiality (McKee et al., 2011). A better understanding of factors that support providers in routinely facilitating parent-adolescent health communication would be useful.

Increasing effective facilitation of parent-adolescent health communication by PCPs could, in theory, improve parent-adolescent health communication resulting from preventive visits. Our study found that for most topics, less than one-quarter of parents reported discussions with their adolescents resulting from the last preventive visit, and for some topics (i.e., sexual orientation, gender identity, and where to access SRH services), only about one in seven parents reported discussions. One possibility for this low prevalence is that providers are not addressing these topics during preventive visits. In a prior analysis of the same dataset, we found that fewer than one-third of adolescents reported discussing SRH topics other than puberty with their provider at their most recent preventive visit (Sieving et al., 2021). Another possibility is that parents and adolescents discussed certain topics because of prior preventive visits and thus did not perceive a need to readdress them. However, research suggests repeated discussions between parents and adolescents are important for behavior change (Martino et al., 2008; Widman et al., 2016; Yang et al., 2013), and routine preventive visits offer an opportunity for PCPs to encourage parents to reiterate key prevention messages with their adolescents and to prompt adolescents to raise questions or discuss concerns with their parents (Hagan et al., 2017). PCPs can also help address parental or adolescent discomfort with discussing sensitive topics, which can pose barriers to parentadolescent communication. Researchers suggest that parents might lack the knowledge, skills, or confidence to discuss sensitive health topics with their adolescents (Ashcraft & Murray, 2017; Guilamo-Ramos et al., 2019; Jones et al., 2021; Koren, 2019; Miller-Day & Dodd, 2004).

This study has several limitations. Importantly, the items about parent-adolescent communication are specific to the adolescent's last preventive visit, whereas provider-

facilitated-health communication is a lifetime measure. These varying time referents for the primary measures of interest (along with the cross-sectional design) do not allow for causal inferences and generally limit the interpretation of the observed associations. Moreover, parent-adolescent communication is reported by parents, and adolescents report provider facilitation. We do not know the extent to which parents' reports of communicating with their adolescent children align with adolescents' experiences, whether conversations were initiated by the parent or adolescent, how the communication was perceived by adolescents or the outcomes of communication. For the parental report of parent-adolescent health communication, we combined "No" and "I don't remember" responses, and recall bias is possible. This dataset has limited data on providers, such as age or number of years in practice, that could provide additional information on characteristics associated with facilitating parent-adolescent communication. We also only know about providerfacilitated communication from adolescent respondents, although providers may facilitate such communication through interacting with parents only. Finally, internet panel surveys have limitations regarding representativeness (Hays et al., 2015)—although the data are weighted on the basis of selected characteristics of noninstitutionalized U.S. adolescents, it is unclear the extent to which the weighting has corrected for biases inherent to an opt-in sample.

IMPLICATIONS FOR PRIMARY CARE PRACTICE

This study has implications for health care providers working with adolescents and their families in primary care settings. Training for providers that describes practice guidelines and scientific evidence for appropriately facilitating parent-adolescent communication provides concrete facilitation skills and tools that could empower providers to be catalysts for parent-adolescent communication about health-related topics. To encourage supportive parent-adolescent communication within confidential care, providers can help adolescents consider the potential advantages of communicating with their parents (Ford et al., 2004). With parents, providers can emphasize that they are an important resource for their children during adolescence and that ongoing communication is an effective way to support healthy development (Widman et al., 2016). Resources such as Bright Futures—Promoting Family Support (Hagan et al., 2017) and the American Academy of Pediatrics (2020) Adolescent Health Care Toolkit offer strategies for PCPs to use in supporting parent-adolescent communication, such as encouraging adolescents to remain connected to their parents even when disagreements exist and encouraging parents to spend time with their adolescent and indicate a willingness to engage in ongoing conversations. However, implementation science that identifies best practices on provider facilitation of parent-adolescent communication and how to standardize such practices within a preventive care visit workflow represents an important area for future research.

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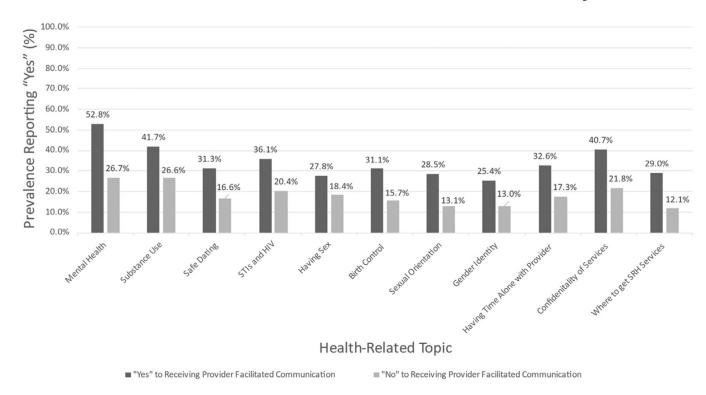


FIGURE.

Prevalence of parent-adolescent communication about health-related topics because of the adolescent's last preventive visita for adolescents who report receiving provider-facilitated communication and for those who report never receiving provider-facilitated communication.

STI, sexually transmitted infections; SRH, sexual and reproductive health. ^a As reported by parent respondents.

TABLE 1. Descriptive statistics of adolescents, parents, and providers characteristics (n = 853)

Characteristics	n (%) or mean ± standard error of mean
Adolescent characteristics and attitudes ^a	
Gender	
Male	427 (48.7)
Female	418 (50.8)
Something else/other	8 (0.5)
Age, years	14.0 ± 0.1
Race/ethnicity	
Non-Hispanic White	494 (52.4)
Non-Hispanic Black	74 (13.5)
Hispanic	200 (24.2)
Other b	85 (10.0)
Trusts provider to keep sexual health information private $^{\mathcal{C}}$	
Agreement	497 (59.6)
Neutral or disagreement	356 (40.4)
Overall, satisfied with parental relationship $^{\mathcal{C}}$	
Agreement	787 (91.5)
Neutral or disagreement	66 (8.5)
Parent characteristics and attitudes d	
Gender	
Male	387 (45.5)
Female	617 (54.5)
Race/ethnicity	
Non-Hispanic White	596 (53.4)
Non-Hispanic Black	108 (15.0)
Hispanic	243 (24.9)
Other	57 (6.7)
Urbanicity of residence	
Rural	284 (17.2)
Nonrural	569 (82.8)
Highest formal education	
Less than high school	59 (9.4)
High school	179 (23.6)
Some college	294 (28.5)
Bachelor's degree or higher	321 (38.5)
Parents feels like a partner with provider $^{\mathcal{C}}$	
Agreement	772 (91.9)
Neutral or disagreement	67 (8.1)
Provider characteristics ^e	

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< 1 year

1 year to < 2 years

2 and < 5 years

5 years

n (%) or mean \pm standard error of mean Characteristics Type of provider 615 (65.4) Pediatrician Family doctor 286 (27.1) 34 (2.8) Nurse practitioner 17 (2.6) Adolescent medicine physician 17 (1.2) Physician assistant 7 (0.7) Internal medicine physician Obstetrician/gynecologist 2(0.3)Gender Male 344 (40.6) Female 472 (59.4) Race/ethnicity 542 (63.3) Non-Hispanic White Non-Hispanic Black 41 (6.0) Non-Hispanic Asian 64 (9.6) 49 (5.3) Hispanic 29 (4.0) Other f Unknown 105 (11.9) How long adolescent had been seeing provider

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Note. n (%) are unweighted frequencies and weighted percentages.

125 (15.3) 77 (10.5)

158 (20.6)

416 (53.6)

^aAdolescents reported all adolescent characteristics and attitudes.

 $^{{}^{}b}{\rm Other~includes~Asian,~American~Indian,~Native~Hawaiian~or~other~Pacific~Islander,~and~"other~race"~responses.}$

 $^{^{\}it c}$ Agreement responses included strongly agree or somewhat agree. Neutral or disagreement responses included neither agree nor disagree, somewhat disagree, or strongly disagree.

dParents reported on all parent characteristics and attitudes, except for urbanicity of residence, which was provided by Ipsos.

^eAll provider characteristics refer to an adolescent's "regular" provider. Adolescents reported on the provider's gender, race/ethnicity, and how long they had seen them. Parents reported the type of provider.

Other includes American Indian, Native Hawaiian, or other Pacific Islander, and "other race" responses.

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TABLE 2.

Bivariate associations between adolescent, parent, and provider characteristics and provider-facilitated-parent-adolescent health communication (n = 853)

Characteristics	Odds ratio (95% confidence interval)
Adolescent characteristics and attitudes ^a	
Gender	
Male	Reference
Female	1.10(0.73–1.66)
Race/ethnicity	
Non-Hispanic White	Reference
Non-Hispanic Black	1.24 (0.76–2.03)
Hispanic	1.36 (0.69–2.67)
Other ^b	1.52 (0.82–2.84)
Adolescent trusts provider to keep sexual health info private $^{\mathcal{C}}$	
Neutral or disagreement	Reference
Agreement	1.45(0.95–2.21)
Overall satisfied with relationship with parents $^{\mathcal{C}}$	
Neutral or disagreement	Reference
Agreement	$0.47 \left(0.25 - 0.90\right)^*$
Parent characteristics and attitudes $^{\it d}$	
Gender	
Male	Reference
Female	0.92(0.61–1.38)
Race/ethnicity	
Non-Hispanic White	Reference
Non-Hispanic Black	1.54 (0.82–2.90)
Hispanic	1.36(0.81–2.29)
Other	
Highest formal education	
Less than high school	Reference
Uinh sahaal	1 24 (0 55 2 92)

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Characteristics	Odds ratio (95% confidence interval)
Some college	0.83(0.37–1.84)
Bachelor's degree or higher	0.84(0.38–1.83)
Parent feels like a partner with provider $^{\mathcal{C}}$	
Neutral or disagreement	Reference
Agreement	1.53 (0.65–3.62)
Provider characteristics $^{\mathcal{C}}$	
Gender	
Male	Reference
Female	0.85(0.56–1.30)
Race/ethnicity	
Non-Hispanic White	Reference
Non-Hispanic Black	1.18(0.50–2.81)
Non-Hispanic Asian	1.60(0.77–3.31)
Hispanic	1.59 (0.69–3.68)
Other^f	1.54 (0.58–4.09)
How long adolescent had been seeing provider	
< 1 year	Reference
1 year to < 2 years	$0.42 \ (0.19-0.94)^*$
2 and $<$ 5 years	0.88(0.46–1.68)
5 years	0.60(0.34–1.04)

 $^{^{\}it a}$ Adolescents reported all adolescent characteristics and attitudes.

 $^{^{}b}$ Other includes Asian, American Indian, Native Hawaiian or other Pacific Islander, and "other race" responses.

c Agreement responses included strongly agree or somewhat agree. Neutral or disagreement responses included neither agree nor disagree, somewhat disagree, or strongly disagree.

dParents reported on all parent characteristics and attitudes, except for urbanicity of residence, which was provided by Ipsos.

e All provider characteristics refer to an adolescent's "regular" provider. Adolescents reported on the provider's gender, race/ethnicity, and how long they had seen them. Parents reported the type of provider.

fOther includes American Indian, Native Hawaiian, or other Pacific Islander, and "other race" responses.

 $^{^*}$ Indicates statistical significance ($\phi < .05$).

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TABLE 3.

Multivariable associations between provider-facilitated-parent-adolescent health commuication and parent-adolescent communication about health-related topics as a result of adolescent's last preventive visit (n = 853)

Parent-adolescent communication health-related topic	Adjusted odds ratio (95% confidence interval) $^{\mathcal{C}}$
Mental health problems (such as depression or anxiety)	$3.25(2.06-5.11)^*$
Substance use (such as alcohol, tobacco, vaping, marijuana, or other drugs)	1.96 (1.23–3.13)*
Safe dating	$2.34 (1.41 – 3.90)^*$
STIs and HIV	2.13(1.29–3.50)*
Whether to have sex	2.98 (1.81–4.90) *
Expectations around using birth control	2.46 (1.45–4.16) *
Sexual orientation (for example, being attracted to boys or girls)	2.56 (1.47–4.47) *
Gender identity (whether someone's sex at birth matches the way they think or feel about their gender)	2.15(1.20–3.84)*
Having time alone with provider	2.30 (1.41–3.77)*
Confidentiality of adolescent services	2.48 (1.55–3.98)*
Where to get sexual and reproductive health services (such as getting birth control or testing for STIs)	2.95 (1.68–5.20)*

Note. STIs, sexually transmitted infections.

 $^{^{}a}$ As reported by adolescent respondents.

 $[\]frac{b}{As}$ reported by parent respondents.

CModels controlled for adolescent age, adolescent race/ethnicity, adolescent gender, parent gender, parent education, and adolescent-par-ent relationship satisfaction (as reported by adolescents).

 $^{^*}$ Indicates statistical significance (p < .05).