Adolescents’ and Young Adults’ Reports of Barriers to Confidential Health Care and Receipt of Contraceptive Services

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ABSTRACT

Purpose: The purpose of this study was to describe adolescents’ and young adults’ concerns about confidential reproductive health care and experience with time alone with a provider, and examine the association of these confidentiality issues with receipt of contraceptive services.

Methods: Data from the 2013 to 2015 National Survey of Family Growth were analyzed using Poisson regression to describe 15- to 25-year-olds’ confidential reproductive health-care concerns and time alone with a provider at last health-care visit according to sociodemographic characteristics. We also assessed whether confidentiality issues were associated with obtaining contraceptive services among females.

Results: Concerns about confidential reproductive health care were less common among 15- to 17-year-olds who were covered by Medicaid compared to their parents’ private insurance (adjusted risk ratio [ARR] = .61, confidence interval [CI] .41–.91) and had high-school graduate mothers compared to college-graduate mothers (ARR = .68, CI .47–.99), and were more common among those who lived with neither parent compared to living with both parents (ARR = 2.0, CI 1.27–3.16). Time alone with a provider was more common among black girls than white girls (ARR = 1.57, CI 1.11–2.22) and less common among girls covered by Medicaid than those with parents’ private insurance (ARR = .72, CI .56–.92). Time alone was less common among boys living with neither parent compared to living with two parents (ARR = .48, CI .25–.91) and with high-school graduate mothers compared to college-graduate mothers (ARR = .59, CI .42–.84). Among sexually experienced girls and women, confidentiality concerns were associated with a reduced likelihood of having received a contraceptive service in the past year.

Conclusions: Greater efforts are needed to support young Americans in receiving confidential care.

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IMPLICATIONS AND CONTRIBUTION
This study uses recent, nationally representative data to examine adolescents’ and young adults’ confidential health care. Many young people may experience barriers to confidential reproductive health services. Policies requiring parental consent for reproductive health care would impose a barrier for adolescents, who might forgo services if they could not obtain them confidentially.

Leading U.S. medical associations endorse confidential health care for adolescents. They specifically recommend that adolescent patients spend time alone with their provider and that providers do not disclose protected information to parents or guardians [1–5]. These recommendations are based on the idea that the provision of confidential care encourages adolescents to share sensitive information with health-care providers [6–8], and thus improve quality of care.
Adolescents with concerns about confidentiality are more likely to forgo health-care services, particularly with regard to sexual and reproductive health (SRH) [9–13]. One study using the National Longitudinal Study of Adolescent Health found that girls who ever had sexual intercourse, did not use birth control at last sex, and had a prior sexually transmitted infection (STI) had greater odds of reporting having forgone care due to confidentiality concerns [14]. Another national study found that almost one third of insured adolescents receiving services at publicly funded family planning centers did not plan to use insurance to cover their visit because of concerns about confidentiality [15].

Most previous studies were conducted before implementation of the Affordable Care Act. As a result of the Affordable Care Act, young adults may be covered by their parents’ health insurance plans until their 26th birthday [16], allowing millions of young adults access to health insurance they otherwise may not have had [17]. However, an unintended consequence of this effort may be breaches of health-care confidentiality, because a billing practice called explanation of benefits provides a detailed statement to the policy holder (i.e., the parent or guardian) about health services paid for by the insurance plan [18,19]. Only two states have adopted confidentiality provisions specific to explanation of benefits [20].

In response to these concerns, the 2013–2015 National Survey of Family Growth (NSFG) included new questions about confidential health care among adolescents and young adults. One report analyzing these data found that female respondents who expressed confidentiality concerns were less likely to have received any sexual health service (SRH) in the past year compared to those not reporting such concerns; there was no association among male respondents [21]. Among both adolescent girls and boys, those who had spent time alone with a provider at their most recent health-care visit in the last year were more likely to have received any SRH services compared to those who did not [21]. However, this measure of SRH services included Pap smear and pelvic examination, which are not recommended routine services for adolescents and young women; the measure also included STI testing, the use of which may be affected differently by confidentiality concerns compared to contraceptive services. It is possible, then, that associations found in the study were weaker than looking at contraceptive services alone.

Another report found that among 15- to 25-year-old women who had ever had sex, confidentiality concern was associated with being less likely to have had a chlamydia test in the past year, but there was no association with STI testing among 15- to 25-year-old sexually experienced men [22]. That analysis also found that among 15- to 17-year-old girls, time alone with a provider was associated with having had a chlamydia test [22]. Neither of these studies examined variation in experiences beyond gender and age.

Building on previous research, this analysis examines how a range of demographic, socioeconomic, and SRH characteristics are associated with adolescents’ and young adults’ experiences with confidentiality issues, and whether these confidentiality issues are associated with receipt of contraceptive services among young women. These findings can be used to inform patient-centered clinical practice and advocacy efforts that support adolescents’ and young adults’ access to confidential care.

### Methods

#### Data

Data for this cross-sectional, descriptive study come from the 2013 to 2015 NSFG, a survey that has been administered periodically since 1973 to assess U.S. residents’ fertility behaviors and outcomes. It uses a multistage probability sample designed to represent the U.S. noninstitutionalized population of men and women aged 15–44. The NSFG consists of an in-home, face-to-face interview, with an audio computer-assisted self-interview (ACASI) portion for more sensitive questions. Adolescent, black, and Latino participants are oversampled; sampling weights are adjusted to account for these unequal probabilities of selection and differential response and coverage rates [23]. This study was exempt from Institutional Review Board review, given the de-identified nature of this publicly available data.

#### Measures

Confidentiality concern was measured by the ACASI-administered question, “Would you ever not go for sexual or reproductive health care because your parents might find out?” and was asked of all adolescents aged 15–17 and young adults aged 18–25 covered by a parents’ private health insurance plan. Of these, 2,291 (98.5%) offered a valid response.

Time alone with a provider was measured by the ACASI-administered question, “The last time you had a health-care visit in the past 12 months, did a doctor or other health provider spend any time alone with you without a parent, relative, or guardian in the room?” This question was asked only of adolescents aged 15–17 years old. Adolescents who reported they did not have a health-care visit in the last year were excluded from the analysis (n = 193). In total, 1,032 adolescents (83.4%) had a health-care visit in the last year and provided a valid response.

Receipt of at least one contraceptive service in the past year was a dichotomous measure of females aged 15–25 reporting having received none or one or more of the following services: birth control counseling, a checkup or test for birth control, a contraceptive method or prescription, emergency contraception counseling, or emergency contraception.

Demographic variables were race/ethnicity (white, black, Latina/Latino, other), age category (15–17 or 18–25), and sex (male or female). Socioeconomic position (SEP) measures were health insurance type (parents’ private insurance, Medicaid, Medicare, no health insurance coverage); current living arrangement (living with two parent figures, living with a single parent figure, or other, i.e., not living with a parent); whether the respondent’s mother was a teen at first birth; and mother’s education level (less than high school, graduated high school, some college, graduated college, or higher). Thirty-eight respondents who reported having no mother figure were excluded from the analyses.

Adolescents’ perceptions of and experiences with confidential care may be correlated with previous sexual experience and education [24]. Therefore, we describe the association of the following sexual experience and education measure with confidentiality issues: whether a respondent had ever had sexual intercourse; whether a respondent received contraceptive information as a part of formal sex education before the age of 18; and the number of sex education topics the respondent’s parent discussed with them before age 18 (0, 1–3, or 4–6 of how to say no to sex, available methods of birth control, where to obtain birth...
control, STI prevention, HIV prevention, and how to use a condom). Respondents who reported discussing only “waiting until marriage to have sex” with their parents are coded as having discussed no sex education topics (0), because we hypothesized that this measure is associated with greater confidentiality concerns, whereas the other measures will be associated with the reduced concerns about confidentiality.

Analysis

First we present percentage distributions of respondents' characteristics by age group. Second, we report the prevalence of confidentiality concerns and having spent time alone with a health-care provider by demographic, SEP, and sexual experience and education characteristics. We describe significant associations using unadjusted and adjusted risk ratios (ARRs) with 95% confidence intervals (CIs). Prevalence of confidentiality concern was substantially different for the two age groups; therefore, we examine 15- to 17-year-olds and 18- to 25-year-olds separately. We report time alone with a provider separately for 15- to 17-year-old boys and girls because previous research has suggested that factors associated with this experience differ by type and magnitude between genders [25].

Third, we report the percent of sexually experienced female respondents who received at least one contraceptive service in the past year by whether they had time alone with a provider at their last health-care visit (15- to 17-year-olds) and whether they reported that they would avoid SRH care because their parents might find out (15- to 17- and 18- to 25-year-olds). We test whether confidentiality issues are associated with the use of any contraceptive services in the past 12 months by estimating unadjusted risk ratios (RRs) and ARRs with 95% confidence intervals. The analysis is limited to female respondents who reported ever having sexual intercourse because they would be most likely to need such care in the past year.1

All analyses were conducted with data weighted using the complex sample svy command in Stata 14.0 (StataCorp LP, College Station, TX), and all risk ratios were estimated using Poisson regression.

Results

Among 15- to 17-year-olds, 55% were white, 63% lived with two parents, 15% had a mother who did not complete high school, and 31% had a mother who was a teen at first birth. Over one third (35%) were covered by Medicaid, whereas 54% were covered by their parents’ private insurance (Table 1). About a quarter (27%) had ever had sexual intercourse, three quarters (76%) had received formal contraception education before age 18, and 30% had discussed four or more SRH topics with their parents. Among 15- to 17-year-old girls, 28% had received at least one contraceptive service in the past 12 months.

Young adults aged 18–25 on their parents’ health insurance were more advantaged compared to 15- to 17-year-olds and compared to other 18- to 25-year-olds. For example, more than two thirds (68%) were white compared to 55% of 18- to 25-year-olds not on their parents’ insurance (not shown); similarly, only 7% had a mother who had not completed high school compared to 17% of other 18- to 25-year-olds, and 19% had a mother who was a teen at first birth compared to 29% of other 18- to 25-year-olds.

In terms of sexual experience and education, 79% of 18- to 25-year-olds on their parents’ insurance had ever had sexual intercourse, 82% had had formal contraception education before age 18, 37% had discussed four or more SRH topics with a parent before turning 18, and among women, 62% received at least one contraceptive service in the past 12 months.

Concerns about confidentiality

When asked if they would ever not go for sexual or reproductive health care because their parents might find out, 18% of 15- to 17-year-olds and 9% of 18- to 25-year-olds said yes (Table 2). This confidentiality concern was more common among younger adolescents (20% of 15-year-olds) than older adolescents (14% of 17-year-olds). Moreover, 15-year-olds were significantly more likely than 17-year-olds to report confidentiality concerns after controlling for race, SEP, and sexual experience and education (ARR = .63, CI .41–.91). Only a few other characteristics were associated with 15- to 17-year-olds reporting confidentiality concerns. Those whose mothers were aged 20 or older at first birth were more likely to have confidentiality concerns than those whose mothers were teens at first birth (20% compared to 14%), although this association was not significant after adjusting for other factors. Adolescents covered by private insurance were more likely to report confidentiality concerns than those with Medicaid (22% vs. 12%, respectively), and this difference remained significant in adjusted analysis (ARR = .61, CI .41–.91). Confidentiality concerns were most common among adolescents whose mothers had graduated from college (24% compared to 15%–16% among all other groups); when other factors were taken into account, they remained significantly more likely to have these concerns than were those whose mothers graduated high school (ARR = .68, CI .47–.99). Although only 5% of adolescents did not live with one or both parents (Table 1), 29% of adolescents in this situation had confidentiality concerns, higher than any other subgroup examined; this association was significant in adjusted analysis (ARR = 2.0, CI 1.27–3.16).

Among 18- to 25-year-olds, the only characteristics associated with reporting confidentiality concern were living with two parents compared to not living with a parent (11% vs. 6%) and having a mother who was 20 years old or older at first birth compared to one who was younger (10% vs. 4%). After adjusting for other factors, only having been born to a mother who was 20 years old or older at first birth remained significant (ARR = .39, CI .20–.78). Neither race/ethnicity nor any sexual experience and education characteristics were associated with confidentiality concerns among either age group.

Time alone with a health-care provider at last visit

Among 15- to 17-year-olds who had a health-care visit in the last year, 45% reported spending some time alone with a health-care provider at their last health-care visit (not shown). There was no significant difference between girls (44%) and boys (46%) (Table 3). Time alone with a provider was more common among older adolescents (51% and 52% of 17-year-old girls and boys,
respectively) compared to younger adolescents (34% and 38% of 15-year-old girls and boys, respectively). This association remained significant only for girls after controlling for other characteristics (ARR = 1.44, CI 1.07–1.93). Time alone was also more common among black girls (58%) than white girls (43%) (ARR = 1.57, CI 1.11–2.22); there was no difference in time alone by race/ethnicity among boys.

Time alone was less common among boys living with one parent (34%, ARR = .64, CI .48–.86) or no parents (22%, ARR = .48, CI .25–.91) compared to those living with two parents (55%). Time alone was also less common among boys whose mothers graduated high school (35%, ARR = .59, CI .42–.84) or attended some college (39%, ARR = .63, CI .45–.87) compared to those whose mothers graduated college (62%).

Time alone with a provider was less common among both girls and boys covered by Medicaid (35% and 38%, respectively) compared to those on their parents’ private insurance (48% of girls and 53% of boys). This association remained significant only for girls after controlling for other factors (ARR = .72, CI .56–.92).

Among girls, time alone with a provider was more common among those who ever had sexual intercourse (50%) compared to those who had not (41%), but the difference was not significant in the adjusted model. Although receipt of formal contraception education was not associated with having spent time alone with a provider, girls reporting more informal education from their parents (those who discussed 4–6 SRH topics) were more likely to have spent time alone (55%) than girls who reported discussing no SRH topics with their parents (34%) (ARR = 1.64, CI 1.19–2.26). Among boys, prior receipt of formal or informal sex education was not associated with having spent time alone with a provider.

Table 1
Percentage distribution of adolescents aged 15–17 and young adults aged 18–25 covered by their parents’ private health insurance plan (n = 2,325), NSFG 2013–2015

| Selected characteristics | Aged 15–17 | Weighted % | Aged 18–25 covered by parents’ private health insurance | Weighted % |
|--------------------------|-----------|------------|------------------------------------------------------|------------|
| n                        | 1,237     | 45.4       | 1,088                                                | 54.6       |

Demographics

| Gender                   | 1,237     | 45.4       | 1,088                                                | 54.6       |
|--------------------------|-----------|------------|------------------------------------------------------|------------|
| Female                   | 613       | 46.1       | 570                                                  | 50.3       |
| Male                     | 624       | 53.9       | 518                                                  | 49.7       |

Race/ethnicity

| White                    | 535       | 55.2       | 686                                                  | 68.3       |
| Black                    | 230       | 15.2       | 158                                                  | 11.6       |
| Latina/Latino            | 393       | 23.0       | 180                                                  | 15.2       |
| Other                    | 79        | 6.6        | 64                                                   | 4.9        |

Socioeconomic position

| Living arrangements      | 1,237     | 45.4       | 1,088                                                | 54.6       |
|--------------------------|-----------|------------|------------------------------------------------------|------------|
| Living with two parents  | 731       | 62.6       | 492                                                  | 47.8       |
| Living with a single parent | 428     | 32.3       | 214                                                  | 16.1       |
| Other                    | 78        | 5.1        | 382                                                  | 36.1       |

Mother’s education

| Less than HS             | 210       | 14.9       | 80                                                   | 6.7        |
| HS graduate              | 365       | 27.1       | 268                                                  | 22.9       |
| Some college             | 322       | 25.5       | 318                                                  | 29.2       |
| University degree or higher | 330    | 25.5       | 420                                                  | 41.2       |

Other

| Yes                      | 380       | 30.8       | 209                                                  | 18.8       |
| No                       | 836       | 69.2       | 862                                                  | 81.2       |

Health insurance status

| Parents’ private insurance | 1,237     | 45.4       | 1,088                                                | 54.6       |
|----------------------------|-----------|------------|------------------------------------------------------|------------|
| Personal private insurance | 1,237     | 45.4       | 1,088                                                | 54.6       |
| Medicaid                   | 481       | 34.6       | N/A                                                  | N/A        |
| Medicare                   | 58        | 4.2        | N/A                                                  | N/A        |
| No health insurance coverage | 102     | 6.8        | N/A                                                  | N/A        |

Sexual Experience and Education

| Ever had sexual intercourse | 1,237     | 45.4       | 1,088                                                | 54.6       |
|----------------------------|-----------|------------|------------------------------------------------------|------------|
| Yes                        | 358       | 27.4       | 833                                                  | 79.0       |
| No                         | 879       | 72.6       | 255                                                  | 21.0       |

Received formal contraceptive education

| Yes                       | 963       | 76.04      | 847                                                  | 82.4       |
| No                        | 272       | 23.96      | 157                                                  | 17.6       |

# of SRH topics discussed with parent

| 0                         | 340       | 28.9       | 274                                                  | 25.4       |
| 1–3                       | 535       | 41.6       | 362                                                  | 37.8       |
| 4–6                       | 361       | 29.5       | 367                                                  | 36.8       |

Use of SRH services in past 12 months

| Any contraceptive services, including emergency contraception (females only) | 1,237     | 45.4       | 1,088                                                | 54.6       |
|---------------------------------------------------------------------------|-----------|------------|------------------------------------------------------|------------|
| Yes                                                                       | 169       | 27.5       | 352                                                  | 62.6       |
| No                                                                       | 444       | 72.5       | 218                                                  | 37.4       |

HS = high school; NSFG = National Survey of Family Growth; SRH = sexual and reproductive health.
| Selected characteristics | 15- to 17-year-olds (n = 1,209) | 18- to 25-year-olds on parents' health insurance (n = 1,082) |
|---------------------------|-------------------------------|--------------------------------------------------|
|                           | Row weighted % | RR | 95% CI | ARR (n = 1,187) | 95% CI | Row weighted % | RR | 95% CI | ARR (n = 981) | 95% CI |
| Total                     | 17.9 | 8.6 | 1.00 |                     | 8.6 | 1.00 |                     | 1.00 |                     | 1.00 |                     |
| **Demographics**          |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| Age                       |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| 15 (18–19)                | 19.6 | 1.00 | 1.00 | 12.1 | 1.00 | 1.00 | 1.00 | 8.2 | 1.00 | 1.00 | 8.2 | 1.00 | 1.00 |
| 16 (20–21)                | 21.3 | 0.97 | 0.76 | 1.01 | .7 .146 | 0.76 | 1.46 | 0.82 | .68 | 0.35 | 1.34 | .76 | 0.76 | 1.53 |
| 17 (22–25)                | 13.7 | .70 | 0.47 | 1.05 | .63* | .41 | 0.98 | 5.7 | .47 | 0.22 | 1.04 | .43 | 0.18 | 1.05 |
| Gender                    |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| Female                    | 18.9 | 1.11 | 0.78 | 1.57 | 1.11 | .81 | 1.53 | 8.7 | 1.02 | .63 | 1.66 | 1.16 | .65 | 2.07 |
| Male                      | 17.1 | 1.00 | 1.00 | 1.00 | 8.5 | 1.00 | 1.00 | 1.00 | 1.00 |                     |       |       |                     |
| Race/ethnicity            |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| White                     | 18.9 | 1.00 | 1.00 | 8.2 | 1.00 | 1.00 | 1.00 |                     |       |       |                     |
| Black                     | 16.6 | 0.88 | 0.58 | 1.33 | 1.19 | .78 | 1.82 | 7.1 | .87 | 0.36 | 2.15 | .62 | 0.26 | 1.46 |
| Latina/Latino             | 17.2 | 0.91 | 0.63 | 1.31 | 1.23 | .84 | 1.18 | 9.7 | 1.19 | .51 | 2.79 | 1.45 | 1.63 | 3.33 |
| Other                     | 15.7 | .83 | 0.46 | 1.50 | .93 | .53 | 1.62 | 15.4 | 1.89 | .93 | 3.84 | 1.56 | .65 | 3.73 |
| **Socioeconomic position**|                 |     |       |                     |       |       |                     |       |                     |       |                     |
| Living arrangements       |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| Living with two parents   | 19.7 | 1.00 | 1.00 | 11.1 | 1.00 | 1.00 | 1.00 |                     |       |       |                     |
| Living with single parent | 12.9 | 0.95 | 0.43 | 1.01 | 0.76 | .48 | 1.12 | 7.4 | .67 | 0.36 | 1.27 | .74 | 0.38 | 1.46 |
| Other                     | 28.6 | 1.45 | 0.92 | 2.29 | 2.00** | 1.27 | 3.16 | 5.9 | .54 | 0.31 | 0.93 | .71 | .38 | 1.3 |
| Mother's education        |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| Less than HS              | 15.7 | 0.66 | 0.44 | 1.01 | 0.76 | .49 | 1.19 | 4.7 | .46 | 0.14 | 1.56 | .54 | 0.15 | 2.02 |
| HS graduate               | 14.9 | 0.63* | 0.44 | 0.91 | 0.68* | .47 | 0.99 | 6.9 | .68 | 0.35 | 1.34 | .82 | .43 | 1.57 |
| Some college              | 15.4 | 0.65 | 0.41 | 1.05 | 0.73 | .47 | 1.13 | 8.9 | .89 | 0.47 | 1.68 | 1.06 | .54 | 2.09 |
| University degree or higher | 23.5 | 1.00 | 1.00 | 10.1 | 1.00 | 1.00 | 1.00 |                     |       |       |                     |
| Mother was teen at first birth | 14.1 | .71* | .51 | .99 | .83 | .6 | 1.15 | 3.8 | .38* | .18 | .81 | .39** | .2 | .78 |
| No                        | 19.8 | 1.00 | 1.00 | 9.8 | 1.00 | 1.00 | 1.00 |                     |       |       |                     |
| Health insurance status   |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| Parents' private insurance | 22.2 | 1.00 | 1.00 | N/A |                     |       |       |                     |       |       |                     |
| Medicaid                  | 12.4 | 0.56*** | 0.39 | 0.79 | 0.61* | .41 | 0.91 |                     |       |       |                     |
| Medicare                  | 15.1 | 0.68 | 0.35 | 1.32 | 0.59 | .33 | 1.07 |                     |       |       |                     |
| Single payer/none         | 12.8 | 0.57 | 0.30 | 1.09 | 0.63 | .32 | 1.21 |                     |       |       |                     |
| **Sexual experience and education** |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| Ever had sexual intercourse | 17.2 | 0.94 | 0.71 | 1.26 | 1.23 | .86 | 1.75 | 7.9 | .70 | 0.37 | 1.31 | 1.16 | .6 | 2.23 |
| No                        | 18.2 | 1.00 | 1.00 | 11.3 | 1.00 | 1.00 | 1.00 |                     |       |       |                     |
| Received formal contraceptive education | 16.4 | 0.71 | 0.48 | 1.05 | 0.72 | .52 | 1 | 8.9 | 1.19 | .57 | 2.47 | 1.15 | .54 | 2.43 |
| No                        | 23.1 | 1.00 | 1.00 | 7.5 | 1.00 | 1.00 | 1.00 |                     |       |       |                     |
| # of SRH topics discussed with parent |                 |     |       |                     |       |       |                     |       |                     |       |                     |
| 0                         | 15.9 | 1.00 | 1.00 | 11.0 | 1.00 | 1.00 | 1.00 |                     |       |       |                     |
| 1–3                       | 20.8 | 1.31 | 0.94 | 1.83 | 1.34 | .97 | 1.86 | 8.7 | .80 | 0.44 | 1.43 | .74 | .42 | 1.33 |
| 4–6                       | 16.0 | 1.01 | 0.60 | 1.68 | 1.11 | .71 | 1.74 | 7.0 | .64 | 0.30 | 1.38 | .55 | .26 | 1.19 |

ARR = adjusted risk ratio; CI = confidence interval; HS = high school; NSFG = National Survey of Family Growth; RR = risk ratio; SRH = sexual and reproductive health.

* p ≤ .05; ** p ≤ .01; *** p ≤ .001.
| Selected characteristics | Girls (n = 528) | | | Boys (n = 504) | | |
|--------------------------|----------------|----------------|----------------|----------------|----------------|
|                          | Row weighted % | RR    | 95% CI | ARR (n = 516) | RR    | 95% CI | ARR (n = 496) | 95% CI |
| **Total**                |                |       |        |               |       |        |               |       |
| **Demographics**         |                |       |        |               |       |        |               |       |
| Age                      |                |       |        |               |       |        |               |       |
| 15 (18–19)               | 33.7           | 1.00  |       | 1.00          |       | 37.9   | 1.00          | 1.00   |
| 16 (20–21)               | 43.5           | 1.29  | .87    | 1.90          | 1.33  | .90    | 1.93          | 1.07   |
| 17 (22–25)               | 51.4           | 1.52* | 1.11   | 2.10          | 1.44* | 1.07   | 1.93          | 1.38*  |
| **Race/ethnicity**       |                |       |        |               |       |        |               |       |
| White                    | 43.0           | 1.00  |       | 1.00          |       | 44.0   | 1.00          | 1.00   |
| Black                    | 57.9           | 1.35  | .97    | 1.86          | 1.57* | 1.11   | 2.22          | 47.1   |
| Latina/o                 | 37.8           | .88   | .68    | 1.14          | .96   | .74    | 1.25          | 50.9   |
| Other                    | 34.9           | .81   | .48    | 1.38          | .96   | .6     | 1.54          | 41.4   |
| **Socioeconomic position**|              |       |        |               |       |        |               |       |
| Living arrangements      |                |       |        |               |       |        |               |       |
| Living with two parents  | 45.3           | 1.00  |       | 1.00          |       | 55.3   | 1.00          | 1.00   |
| Living with a single parent | 39.7           | .88   | .67    | 1.14          | .80   | .63    | 1.03          | 33.8   |
| Other                    | 43.2           | .95   | .63    | 1.44          | .96   | .6     | 1.54          | 22.3   |
| Mother’s education       |                |       |        |               |       |        |               |       |
| Less than HS             | 32.9           | .70   | .40    | 1.20          | .84   | .47    | 1.48          | 41.7   |
| HS graduate              | 42.8           | .91   | .66    | 1.25          | .94   | .7     | 1.26          | 34.6   |
| Some college             | 45.3           | .96   | .70    | 1.32          | .95   | .69    | 1.3           | 38.7   |
| University degree or higher | 47.1           | 1.00  |       | 1.00          |       | 62.0   | 1.00          | 1.00   |
| Mother was teen at first birth | 46.2           | 1.08  | .83    | 1.40          | 1.04  | .82    | 1.31          | 35.4   |
| No                       | 42.9           | 1.00  |       | 1.00          |       | 51.0   | 1.00          | 1.00   |
| Health insurance status  |                |       |        |               |       |        |               |       |
| Parents’ private insurance | 48.0           | 1.00  |       | 1.00          |       | 53.0   | 1.00          | 1.00   |
| Medicaid                 | 34.8           | .72*  | .55    | .95           | .72*  | .56    | .92           | 37.6   |
| Medicare                 | 59.2           | 1.23  | .75    | 2.04          | 1.22  | .72    | 2.08          | 46.2   |
| Single payer/none        | 41.5           | .86   | .47    | 1.58          | .89   | .51    | 1.55          | 25.8   |
| **Sexual experience and education** |         |       |        |               |       |        |               |       |
| Ever had sexual intercourse | 50.4           | 1.23* | 1.0    | 1.5           | 1.04  | .84    | 1.29          | 48.7   |
| No                       | 41.0           | 1.00  |       | 1.0           |       | 44.5   | 1.00          | 1.00   |
| Received formal contraceptive education |        |       |        |               |       |        |               |       |
| Yes                      | 45.8           | 1.28  | .97    | 1.69          | 1.15  | .89    | 1.48          | 47.9   |
| No                       | 35.7           | 1.00  |       | 1.0           |       | 39.0   | 1.00          | 1.00   |
| # of SRH topics discussed with parent |        |       |        |               |       |        |               |       |
| 0                        | 34.3           | 1.00  |       | 1.00          |       | 43.5   | 1.00          | 1.00   |
| 1–3                      | 39.2           | 1.14  | .77    | 1.69          | 1.28  | .9     | 1.83          | 44.6   |
| 4–6                      | 54.7           | 1.59  | 1.11   | 2.28          | 1.64**| 1.19   | 2.26          | 50.8   |

ARR = adjusted risk ratio; CI = confidence interval; HS = high school; NSFG = National Survey of Family Growth; RR = risk ratio; SRH = sexual and reproductive health.

*a Denominator is 15–17 years old with a health visit in the last year; the 16% of all 15- to 17-year-olds reporting no health visit in the last year are excluded.

*p ≤ .05; ** p ≤ .01.
The association of time alone and confidentiality concerns with the receipt of contraceptive services

Among adolescent females who had ever had sex (26%, not shown), time alone with a provider was not significantly associated with receipt of a contraceptive service (Table 4). In contrast, among both sexually experienced adolescent and young adult women, confidentiality concerns were associated with a significantly reduced likelihood of having received a contraceptive service. Among sexually experienced girls aged 15–17, 22% of those with confidentiality concerns received any contraceptive services compared to 67% of those who did not report concern. Among sexually experienced 18- to 25-year-old women, 47% of those reporting confidentiality concerns received any contraceptive service in the past year, compared to 75% of those who reported none. For both age groups, these associations remained significant in the adjusted models.

Discussion

Despite increases in health insurance coverage among young adults in recent years [17], and broad support from medical professionals regarding the importance of confidential SRH care for minors, this study documents continued barriers to confidential health care for young Americans. We found that several characteristics typically associated with socioeconomic disadvantage, including mother’s education, having a mother who was a teen at first birth, and receiving Medicaid, were associated with being less likely to report concerns about confidentiality, particularly among minorities. This is consistent with a previous study that found adolescent girls in family planning clinics with mothers that had graduated high school were more likely to say their parents knew they were at the clinic compared to those with college-graduate mothers [10]. It is possible that the parents of lower SEP youth may be more supportive of their children’s use of SRH care, or have less time and fewer resources to monitor their children’s use of health-care services. It is also possible that some lower SEP youth use services that are more likely to guarantee confidential care, such as Title X facilities, and therefore are less concerned their parents will find out. More research would be needed to explore these and other possible explanations.

Adolescents not living with either parent, on the other hand, appear to be at increased risk of reporting confidentiality concerns. Little is known about this small group (5% of all 15- to 17-year-olds). It may be that minors living in other family structures appear to be at increased risk of reporting confidentiality concerns. Little is known about this small group (5% of all 15- to 17-year-olds). It may be that minors living in other family structures have particularly low communication or trust with guardians in regard to SRH issues, leading to greater confidentiality concerns. This finding underscores the importance of policies ensuring confidential care because some adolescents may be in particularly vulnerable circumstances.

Disadvantaged adolescents were less likely to have time alone with a health-care provider during their last visit. This may reflect differences in the types of health-care facilities used or services requested by lower compared to higher SEP adolescents. For example, in one study of clinic-based primary care providers, the odds of having time alone with a provider was three times higher if the adolescent patient was presenting with a sex complaint [24]. However, a limitation of our analyses is that we were unable to assess respondents’ source of health care, nor did we have information on adolescents’ reason(s) for their last visit. Even though lower SEP teens are less likely to report SRH confidentiality concerns, all teens should get time alone with their health provider as they may be unwilling to discuss any number of health issues, some unrelated to SRH, if a parent is present.

Neither receipt of formal instruction about birth control methods or SRH information from parents was associated with concerns about confidentiality. Female adolescents who had discussions with parents about more SRH topics were more likely to have had time alone with their health-care provider at their last visit, but this relationship did not hold for boys.

Regardless of age, sexually experienced women with confidentiality concerns were less likely to have received any contraceptive services in the past year. Among both 15- to 17-year-old girls and 18- to 25-year-old women, reporting confidentiality concern was strongly and robustly associated with a lower likelihood of having received any contraceptive services in the past year, even after controlling for a range of characteristics. These findings are consistent with and complement recent analyses of these data, finding that women with confidentiality concerns were less like to have obtained any SRH

Table 4

| Time alone among 15- to 17-year-olds (n = 141) | Row weighted % | RR | 95% CI | ARR* | 95% CI |
|---------------------------------------------|----------------|----|--------|-----|--------|
| Yes                                         | 63.2           | 1.12 | .75    | 1.66 | .05    |
| No                                          | 57.1           | 1.00 |        | 1.00 |        |
| Confidentiality concern among 15- to 17-year-olds (n = 151) | | | | | |
| Yes                                         | 21.5           | .34** | .18    | .65  | .37**  |
| No                                          | 67.4           | 1.00 |        | 1.00 |        |
| Confidentiality concern among 18- to 25-year-old women on parents’ private insurance (n = 386) | | | | | |
| Yes                                         | 46.5           | .64*** | .42    | .97  | .66*   |
| No                                          | 75.3           | 1.00 |        |      |        |

ARR = adjusted risk ratio; CI = confidence interval; NSFG = National Survey of Family Growth; RR = risk ratio; SRH = sexual and reproductive health.

* Adjusted for age, race/ethnicity, mother’s education, teen mother at first birth, living arrangements, sex education, number of SRH topics discussed with parent, health insurance (15- to 17-year-olds only).

2 We originally estimated three adjusted models, entering variables stepwise to describe the effect of each domain (demographics, SEP, sexual experience, and education) on the estimate of the main independent variable; however, estimates for all models changed little from the unadjusted RR, so we present only the fully adjusted model here for comparison.
services [21], and less likely to have had a chlamydia test specifically [22]. These results indicate that concerns about confidentiality may deter both adolescent and young adult women from obtaining contraceptive services, and therefore is an important consideration for policies and programs focusing on reducing unintended pregnancy.

Best practices for supporting adolescents’ confidentiality when seeking SRH services have been established [26,27]; nevertheless, complex and contradictory policies regarding adolescents’ right to confidential care may continue to be a barrier to implementing safeguards to confidential care in some settings [28]. In this study we found that Medicaid-covered youth were less likely to report confidentiality concerns, suggesting the importance of programs that explicitly guarantee confidential care for adolescent access to SRH care. However, at least one state, Texas, has requested permission to use federal Medicaid funds to support a family planning program that is currently state-funded and that requires minors to obtain consent from a parent or guardian to obtain SRH services, even though parental consent has never been permitted for family planning care under Medicaid [29]. Our findings suggest that lower SEP adolescents are less likely than higher SEP teens to report SRH confidentiality concerns. Still, if this Medicaid policy change, or ones similar to it, were to be implemented, it would impact the most vulnerable teens, who might forgo needed contraception and STI services if they could not get them confidentially. Instead, these results indicate that greater efforts are needed to support health-care providers in educating parents about the value of time alone and confidential care for their adolescent, and building policy and programmatic supports for including this during adolescent and young adult health-care visits.

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