Original article

Reproductive Health Screening Disparities and Sexual Orientation in a Cohort Study of U.S. Adolescent and Young Adult Females

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A B S T R A C T

Purpose: To examine sexual orientation group disparities in the Papanicolaou (Pap) and sexually transmitted infection (STI)/human papillomavirus (HPV) tests among adolescents and young adult females.
Methods: Survey data from 4,224 adolescents and young adults aged 17–25 years who responded to the 2005 wave questionnaire of the Growing Up Today Study were cross-sectionally examined with multivariate generalized estimating equations regression. We examined associations between sexual orientation and reproductive healthcare utilization as well as abnormal results with completely heterosexual as the referent group, controlling for age, race/ethnicity, geographic region, and sexual history.
Results: After accounting for sociodemographics and sexual history, mostly heterosexual/bisexual females had 30% lower odds of having a Pap test within the last year and almost 40% higher odds of being diagnosed with an STI, as compared with the completely heterosexual group. Additionally, lesbians had very low odds of having a Pap test in their lifetime (odds ratio = .13, $p \leq .0001$) and having a Pap test within the last year (odds ratio = .25, $p = .0002$), as compared with completely heterosexuals.
Conclusions: Our study demonstrates that sexual minority adolescent and young adult women underutilize routine reproductive health screenings, including Pap smears and STI tests. Providers and health educators should be aware of these disparities so that they can provide appropriate care to young women and their families and ensure that all young women receive reproductive health screening. Further research is needed to explore reasons sexual minority females are not accessing care as recommended because this may suggest opportunities to improve reproductive health screenings as well as broader healthcare access issues.

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Reproductive health care during adolescence and young adulthood helps prevent physical and psychological morbidity and improves health quality throughout life [1]. Acquiring a sexually transmitted infection (STI) is associated with increased risk for numerous adverse health outcomes, including other STIs [2], infertility [3], cancer [4], and premature death [5]. The human papillomavirus (HPV) is the most common STI in the United States [2], with 80% lifetime incidence [6]; it most often afflicts adolescents, with 74% of new infections occurring in 15–24-year-olds [2]. HPV also acts as the primary cause of cervical cancer [7] by leading to cervical precancers. These can be screened with tools such as the Papanicolaou (Pap) test [8], but this test is underutilized and misunderstood, particularly by young adults [9] and sexual minorities (i.e., individuals who identify as lesbian, gay, or bisexual or who report same-sex sexual contact or attractions) [10].

Owing to several increased risk factors, it is important to study reproductive health behaviors of adolescents and young adults as well as sexual minorities. The primary risk factor for HPV infection is contact with male partners, so it is noteworthy that females of all sexual orientations often report a history of male sexual contact. Studies show that among sexually active adolescents, 76% of lesbian, 96% of bisexual, and 98% of heterosexual females report male sexual contact [11]. Even for women who have had sexual contact only with other women, HPV transmission is possible because it requires only skin-to-skin contact [12,13]. Additionally, adolescent girls have higher HPV rates as compared with adult women because they tend to have more sexual partners than adults [2]. As compared with heterosexuals, sexual minority youth and adults are screened with Pap tests less frequently, possibly increasing their risk for cervical cancer [14]. Sexual minorities also have higher cigarette smoking rates in adolescence and adulthood [15], which increase the risk that an HPV infection will progress to a cervical abnormality [16–18].

The Institute of Medicine reports that more data on STIs, Pap tests, and cervical dysplasia among sexual minorities are needed to guide medical, governmental, and educational policies [19]. Therefore, we examined Pap, STI, and HPV screening use and abnormal results in adolescent and young adult females of varying sexual orientations using descriptive epidemiologic research. This kind of analysis has rarely been conducted in a national sample. We hypothesized that sexual minority adolescent and young adult females underutilize Pap and HPV tests and have higher lifetime prevalence of abnormal results as compared cross-sectionally with heterosexual peers. Additionally, we hypothesized that reproductive health risk factors (sex of sexual partners, initiation of sexual intercourse, age of coitarche, and number of sexual intercourse partners) would differ by sexual orientation and partially explain sexual orientation group disparities in Pap test utilization, abnormal Pap test results, and STI/HPV risk in adolescent and young adult females.

Methods

Study sample

The Growing Up Today Study is an ongoing longitudinal cohort study of U.S. adolescents and young adults established in 1996 to assess an array of health topics. Women from the Nurses' Health Study II [20] who indicated they had at least one child aged 9–14 years provided consent and contact information for more than 25,000 of their children. Mothers who provided such

information marginally varied from those who did not with regard to smoking (8% vs. 10%), age (37.7 vs. 37.8), and body mass index (25.3 kg/m^2 vs. 25.7 kg/m^2). Questionnaires were mailed to the children, and 9,039 girls (68%) and 7,843 (58%) boys returned completed questionnaires, indicating their consent. Questionnaires are now mailed annually or biennially, and more detailed information on the initial recruitment is available elsewhere [21]. Detailed reproductive health and sexual risk behavior questions were included in the 2005 Growing Up Today Study questionnaire, thus our sample was restricted to female participants responding in that survey year. Owing to the fact that these data were collected in 2005, we included only participants who reported sexual orientation and met the 2005 Pap test eligibility guidelines of ≥3 years since coitarche or being of age ≥21 years (N = 4,224). Additionally, we conducted sensitivity analyses including those participants who would be considered eligible by the current Pap eligibility guidelines. Because of the small number of cases, analyses did not include participants who were unsure (N = 6) or missing (N = 14) the sexual orientation response. Because clinical guidelines now recommend that screening should begin at the age of 21, regardless of sexual history [22], we ran additional analyses restricted to participants who met current Pap testing eligibility guidelines of being of age ≥21 years, regardless of sexual history (N = 3,426). This study was approved by the Brigham and Women's Hospital institutional review board.

Measures

Sexual orientation

Sexual orientation was assessed with an item adapted from the Minnesota Adolescent Health Survey [22,23] asking about feelings of attractions: "Which of the following best describes your feelings? (1) completely heterosexual (attracted to persons of the opposite sex), (2) mostly heterosexual, (3) bisexual (equally attracted to men and women), (4) mostly homosexual, (5) completely homosexual (gay/lesbian, attracted to persons of the same sex), (6) not sure." The "mostly homosexual" and "completely homosexual" responses were combined to form a lesbian category to increase statistical power. Participants who did not respond after two initial mailings received a short-form version of the 2005 questionnaire, which included the sexual orientation item. Encouraging participants to respond through multiple mailings and questionnaire forms resulted in more complete data.

Sexual history

Sex of sexual contacts was assessed with an item reading: "During your life, the person(s) with whom you have had sexual contact is (are)..." Responses included "I have not had sexual contact with anyone," "Females," "Males," or "Female(s) and Male(s)." An indicator variable was used for missing data on sex of sexual contacts (N = 26). The next question read: "Have you ever had sexual intercourse? (By sexual intercourse we mean vaginal or anal sex)." It is important to note that this question uses a definition of sexual intercourse that excludes oral sex and other types of vaginal or anal sexual contact if a participant does not define it as intercourse. Responses included "yes," "no," and "not sure" and if a participant indicated "yes" or "not sure," they were prompted to answer: "During your life, with how many people have you had sexual intercourse?" and "How old were you when you had sexual intercourse for the first time?" The

respective means within each sexual orientation category were used for any individual who indicated having initiated sexual intercourse but who were missing information on age (N = 371) and number of sexual intercourse partners (N = 428). All the aforementioned questions appeared on the short-form survey version.

Care utilization

Pap test use was assessed with the question: "Have you ever had a Pap test?" Responses included "yes," "no," and "not sure." If a participant indicated "yes" or "not sure," they were prompted to answer another question: "Have you had a Pap test in the past year?" with "yes," "no," and "not sure" possible responses. Physical examination use was also assessed with the question: "When was your last routine (preventative) physical exam or check-up?" The short-form survey version included both Pap test items but not the physical examination item. No information on HPV vaccine utilization was collected.

Abnormal results

Participants who indicated "yes" or "not sure" for "ever had a Pap test" were also prompted to respond to a third question: "Have you ever been told by a doctor or nurse that you had an abnormal Pap test?" with "yes," "no," and "not sure" possible responses. A separate question assessed STI diagnoses: "Have you ever been told by a doctor or nurse you have a sexually transmitted disease or STD? (for example: chlamydia, genital herpes, gonorrhea, genital warts, pubic lice or crabs, syphilis, HIV or AIDS)." Responses included "yes," "no," and "not sure." If a participant indicated "yes" or "not sure," they were prompted to answer a second question: "Have you ever had human papillomavirus (HPV) infection or genital warts?" with "yes," "no," and "not sure" possible responses. The short-form survey version did not include questions about abnormal results.

Statistical analysis

We conducted descriptive statistics and multivariate regression analyses with SAS statistical software 9.2 (PROC GENMOD, SAS Institute, Inc., Cary, NC) [24]. Analyses were cross-sectional and used 2005 data. We investigated sexual orientation group patterns in the prevalence of care utilization and abnormal results. We then examined multiple covariates that may confound or explain associations between sexual orientation and care utilization or abnormal result variables. First, we tested sociodemographic covariates (age, race/ethnicity, and region of residence) in separate models for each explanatory variable. Next, we tested sociodemographic and sexual history covariates (any male sexual contacts, initiated sexual intercourse, age at coitarche, and number of sexual intercourse partners). We used generalized estimating equation statistical methods in regression analyses to account for intracluster correlation resulting from sibling groups in the cohort [25]. An indicator variable for missing data were created for race (N = 18), whereas missing data on geographic region were not included in the analysis owing to the small number of cases (N = 7). Models estimated odds ratios (ORs) and 95% confidence intervals using completely heterosexual as the reference group. Mostly heterosexual and bisexual were collapsed to form one category in the generalized estimating equation models because associations with predictors and outcomes were similar in the two groups and combining the groups increased statistical power.

Results

Among the 4,224 female participants included in our analyses, 82% (N = 3,478) described themselves as completely heterosexual, 14% (N = 572) as mostly heterosexual, 3% (N = 114) as bisexual, and 1% (N = 60) as mostly homosexual or completely homosexual (lesbian). Table 1 displays characteristics of the study population by sexual orientation. The racial/ethnic composition of the cohort was predominantly white (93%), and participants were aged 17–25 years when they returned the 2005 questionnaire with a mean of 21.6 years (SD: ±1.4). Overall, as compared with completely heterosexuals, females who identified as mostly heterosexual, bisexual, or lesbian were more likely to report that they had initiated sexual intercourse, and mostly heterosexuals as well as bisexuals reported a younger age of coitarche and more sexual partners. A high proportion of participants, regardless of sexual orientation, reported some kind of male sexual contact: 65% of lesbian, 96% of bisexual, 97% of mostly heterosexual, and 90% of completely heterosexual females.

Table 2 displays prevalence estimates of STI and Pap tests by sexual orientation groups. Mostly heterosexual adolescents and young adults had the highest Pap test use, whereas lesbians reported the lowest Pap test use within the last year. Among individuals who reported ever having a Pap test, the abnormal Pap tests rate was consistent across each sexual orientation group at around 20%. Among individuals who reported an STI diagnosis, HPV diagnoses were also constant across each sexual orientation group at about 66%. STI diagnoses were most common in the mostly heterosexual and bisexual groups. We also examined whether the prevalence of a recent routine physical examination varied by sexual orientation. All these associations were statistically significant with p values of <.0001. As compared with 59% of completely heterosexual females, 53% of mostly heterosexual ($p \le .0001$), 54% of bisexual ($p = .0078$), and 47% lesbian females ($p = .4178$) reported a routine physical examination within the last year.

To examine associations between sexual orientation and the reproductive health outcomes before and after adjusting for sexual history, we restricted the remaining analyses to the subsample of females who reported on the sex of their sexual contacts, age of coitarche, and lifetime number of sexual intercourse partners (N = 3,590). Table 3 shows the partially adjusted ORs from the models controlling for sociodemographic variables and then the fully adjusted ORs from models further controlling for sexual history variables. After adjusting for age, race/ethnicity, and geographic region, reporting a mostly heterosexual/bisexual sexual orientation was positively associated with ever having a Pap test and an STI diagnosis but was negatively associated with having a Pap test within the last year, when compared with completely heterosexuals. Reporting a lesbian as compared with a completely heterosexual orientation was negatively associated with ever having a Pap test and having a Pap test within the last year. Most ORs that had been significant in partially adjusted models remained significant in the fully adjusted models, although some were attenuated. After accounting for sociodemographics and sexual history, mostly heterosexual/bisexual females had 30% lower odds of having a Pap test within the last year and almost 40% higher odds of being diagnosed with an STI, as compared with the completely heterosexual group. In fully adjusted models, lesbians had very low odds of having a Pap test in their lifetime (OR = .13, $p \le .0001$) and

Table 1
Demographic and sexual health characteristics by sexual orientation in a cohort of U.S. adolescent and young adult females aged 17–20 years (≥3 years since coitarche) or ≥21 years (N = 4,224)

Variable	All (N = 4,224)	Completely heterosexual (N = 3,478)	Mostly heterosexual (N = 572)	p^a	Bisexual (N = 114)	p^a	Lesbian (N = 60)	p^a
Mean age, years (SD)[b] (range: 17–25)	21.6 (±1.4)	21.6 (±1.4)	21.5 (±1.5)	.0563	21.4 (±1.5)	.1310	21.7 (±1.4)	.6455
Race/Ethnicity, % (N)[c,d]								
White	93 (3,917)	94 (3,259)	90 (507)	.0001	88 (99)	.0388	90 (52)	.2996
Nonwhite	7 (278)	6 (210)	9 (50)		11 (12)		10 (6)	
Geographic region, % (N)[e]								
Midwest	35 (1,482)	36 (1,267)	30 (170)	<.0001	28 (31)	<.0001	24 (14)	<.0001
West	15 (611)	14 (486)	17 (96)		21 (23)		10 (6)	
South	15 (641)	15 (535)	13 (72)		18 (20)		24 (14)	
Northeast	35 (1,474)	34 (1,190)	40 (222)		34 (38)		41 (24)	
Sex of sexual contacts, % (N)[d,f]								
Male	82 (3,440)	88 (3,041)	68 (378)	<.0001	17 (19)	<.0001	3 (2)	<.0001
Male and female	8 (337)	2 (53)	29 (160)		79 (88)		62 (36)	
Female	1 (45)	1 (23)	<1 (1)		2 (2)		33 (19)	
None	9 (360)	10 (339)	3 (17)		3 (3)		2 (1)	
Initiated sexual intercourse, % (N)[c]	85 (3,570)	83 (2,892)	93 (522)	<.0001	91 (102)	<.0001	93 (54)	<.0001
Restricted to subsample who had initiated sexual intercourse:	N = 3,570	N = 2,892	N = 522		N = 102		N = 54	
Mean age of coitarche, years (SD) (range: ≤13–≥21)	17.1 (±1.9)	17.2 (±1.9)	16.6 (±1.8)	<.0001	16.3 (±2.1)	<.0001	16.8 (±1.9)	.1606
Mean sexual intercourse partners, number (SD) (range: 1–6+)	3.7 (±1.9)	3.5 (±1.9)	4.5 (±1.7)	<.0001	4.5 (±1.8)	<.0001	3.9 (±1.9)	.1421

[a] Completely heterosexual is referent group.
[b] One sample t-tests were used to generate p values.
[c] Binomial tests were used to generate p values.
[d] May not add to 100% because of missing data.
[e] χ^2 tests were used to generate p values.
[f] Fisher's exact tests were used to generate p values.

having a Pap test within the last year (OR = .25, p = .0002), as compared with completely heterosexuals.

Based on the new clinical guidelines for Pap screening released in late 2009, we ran subanalyses restricted to participants who met the new eligibility guidelines of being of age ≥21 years, regardless of sexual history (N = 2,792). Adjusting for sociodemographics, mostly heterosexual/bisexual women still had higher odds of receiving an STI diagnosis (p ≤ .0001) and lower odds of lifetime Pap test (p = .0017), whereas lesbian women still had lower odds of obtaining a Pap test within the last year (p ≤ .0001) (data not shown).

Discussion

Our study demonstrates that sexual minority adolescent and young adult women underutilize routine reproductive health screenings, including Pap smears and STI tests. Both lifetime and past year Pap testing as well as history of STI diagnosis varied by sexual orientation. After accounting for sociodemographics and sexual history, mostly heterosexual/bisexual females were less likely than heterosexual females to have had a Pap test in the past year but more likely to have ever had an STI. Lesbians were far less likely to receive Pap test screening than completely heterosexuals, even when accounting for sociodemographics and sexual history.

Previous studies document that sexual minority youth do not have as much support from family and heterosexual peers with regard to sexuality issues [26] and they do not believe they are at risk for abnormal Pap tests and STI diagnoses because of their sexual orientation [27], which might lead to lower rates of sexual health screenings such as Pap and STI tests. Less social support [26], lower risk perceptions [27], or an initial adverse experience [13] could lead to infrequent care and higher abnormal Pap test and HPV diagnoses rates. All these mechanisms should be ex-

Table 2
Care utilization and abnormal test result prevalence by sexual orientation in a cohort of U.S. adolescent and young adult females aged 17–20 years (≥3 years since coitarche) or ≥21 years (N = 4,224)

Variable	All (N = 4,224)	Completely heterosexual (N = 3,478)	Mostly heterosexual (N = 572)	Bisexual (N = 114)	Lesbian (N = 60)
Ever in life had Pap test, % (n)	87 (3,662)	86 (2,986)	93 (529)	90 (102)	76 (45)
Restricted to subsample who had Pap test:	N = 3,662	N = 2,986	N = 529	N = 102	N = 45
In last year had Pap test, % (n)	87 (3,148)	88 (2,590)	84 (441)	84 (86)	70 (31)
Ever in life had abnormal Pap test, % (n)	20 (641)	19 (516)	21 (97)	22 (21)	18 (7)
Ever in life received STI diagnosis, % (n)	12 (475)	11 (342)	21 (106)	22 (23)	8 (4)
Restricted to subsample who had STI diagnosis:	N = 475	N = 342	N = 106	N = 23	N = 4
Ever in life received HPV diagnosis, % (n)	66 (316)	66 (230)	64 (68)	61 (14)	100 (4)

Pap = Papanicolaou; STI = sexually transmitted infection; HPV = human papillomavirus.

Table 3
Multivariate odds ratios for care utilization and abnormal result variables adjusted for sociodemographics in a complete case analysis of a cohort of U.S. adolescent and young adult females aged 17–20 years (≥3 years since coitarche) or ≥21 years (N = 3,590)

Sexual Orientation	Ever in life had Pap test		In last year had Pap test		Ever in life had abnormal Pap test		Ever in life received STI diagnosis		Ever in life received HPV diagnosis	
	OR (95% CI)	p	OR (95% CI)	p	OR (95% CI)	p	OR (95% CI)	p	OR (95% CI)	p
Restricted to subsample who reported sex of sexual contacts, age of coitarche, and number of sexual intercourse partners:										
Partially adjusted (for age, race/ethnicity, and geographic region):										
Sexual orientation										
Completely heterosexual	Reference	–	Reference	–	Reference	–	Reference	–	Reference	–
Mostly heterosexual/bisexual	1.66 (1.11, 2.50)	.0134	.73 (.56, .94)	.0172	1.07 (.85, 1.35)	.5564	2.00 (1.59, 2.52)	<.0001	.88 (.58, 1.35)	.5683
Lesbian	.19 (.10, .36)	<.0001	.25 (.13, .50)	<.0001	.92 (.40, 2.12)	.8435	.58 (.21, 1.64)	.3060	NA[a]	NA
Fully adjusted (further adjusted for any male sexual contacts, age of coitarche, and number of sexual intercourse partners):										
Sexual orientation										
Completely heterosexual	Reference	–	Reference	–	Reference	–	Reference	–	Reference	–
Mostly heterosexual/bisexual	1.29 (.85, 1.96)	.2268	.70 (.54, .92)	.0098	.79 (.62, 1.01)	.0512	1.37 (1.08, 1.75)	.0113	.87 (.56, 1.35)	.5430
Lesbian	.13 (.06, .27)	<.0001	.25 (.12, .52)	.0002	.72 (.30, 1.73)	.4595	.42 (.14, 1.23)	.1134	NA[a]	NA
Sexual history										
Any male sexual contacts	.73 (.27, 1.96)	.5272	1.09 (.51, 2.35)	.8263	.92 (.45, 1.88)	.8241	.71 (.32, 1.56)	.3887	.29 (.04, 2.39)	.2504
Age of coitarche	.75 (.68, .83)	<.0001	.95 (.89, 1.02)	.1492	.91 (.85, .96)	.0008	.91 (.85, .97)	.0048	1.16 (1.02, 1.32)	.0231
Number of sexual intercourse partners	1.12 (1.02, 1.22)	.0054	1.00 (.94, 1.07)	.9293	1.32 (1.24, 1.39)	<.0001	1.53 (1.43, 1.65)	<.0001	1.17 (1.02, 1.35)	.0249

[a] Insufficient number of cases.

plored in future research. Clinicians should understand these barriers and communicate to patients that certain sexual behaviors, regardless of sexual orientation identity, increase risk. Our finding that mostly heterosexual/bisexual females had higher odds of being diagnosed with an STI, as compared with completely heterosexuals, is consistent with previous findings in adults [11,28,29]. No sexual orientation differences were observed in the odds of receiving an HPV diagnosis, but there were few reported cases. HPV DNA is present in almost all invasive carcinomas and the vast majority of abnormal Pap test results [30]. However, more than double the number of participants who reported an HPV diagnosis reported an abnormal Pap test, suggesting that participants may have a poor understanding of the meaning and cause of an abnormal Pap test. The lower rates of even routine physical examination use in sexual minorities as compared with completely heterosexual females underscore how important it is to encourage sexual minority adolescent girls and young women to regularly seek care.

Lesbian adolescents and young adults had lower odds of having a Pap smear, both over their lifetime and in the past year. Again, possible factors contributing to this disparity include a lower risk perception [31], poor patient–provider communication [10], lack of insurance [13], or other healthcare system factors [32]. Regardless of a patient's reported sexual orientation identity, clinicians must offer a Pap test to every individual who meets age guidelines. Lesbians may be less likely to use birth control and therefore miss regular healthcare opportunities. Future studies with greater statistical power may reveal that lesbians have lower odds of abnormal Pap tests and STI diagnosis. Examining comparisons across sexual orientation groups will continue to be difficult even in large studies because cervical dysplasia and most STIs are asymptomatic and will not be detected without regular preventative care. Previous studies report that lesbian adolescents [11] and adults [19,29,30] are at an increased risk for STIs but are unlikely to report receiving a diagnosis [33].

Although our study had numerous strengths, including the large, national sample, there were limitations. We were able to examine a younger population as compared with previous studies, but we were limited by the homogenous racial/ethnic composition of our cohort and by the fact that all the participants are children of nurses. Daughters of nurses may have higher healthcare utilization than the general population, which would overestimate utilization in this sample. Therefore, the sample is not representative of U.S. adolescents and young adults. All the data were available only from self-reports rather than another source, such as medical records. One of the limitations of self-reports in this context is that any gynecologic examination could be misreported as a Pap test, which could lead to over-reporting. Because we were working with existing data, we could not access any other information, such as more detailed sexual history variables. Additionally, our data likely underestimate the true prevalence of our outcomes because many abnormal results, such as an asymptomatic STI, go undetected and previous research indicates that adolescent and young adult women do not reliably report detected diagnoses like HPV infections [34]. Restricting the analysis to 2005 Pap guidelines did not seem to bias the results when we reanalyzed the data using current guidelines in the sensitivity analyses. However, the new Pap test guidelines may affect reproductive health screenings among sexual minorities. Now that eligibility is based on age rather than a combination of age and sexual history, sexual minority woman may have

more similar care to their heterosexual peers. More research is needed to explore these associations. Finally, we had low power to detect differences in some outcomes, such as abnormal Pap tests and HPV diagnoses. Another important strength of our study is that although previous research has varied the operational definition of "lesbian," [10] often combining behavior and identity measures or even including bisexual women in this category, we were able to more precisely examine different sexual orientation identity groups by distinguishing between lesbian and bisexual women and controlling for sexual history.

Regular Pap tests and STI screenings are needed by all young adult females who meet current guidelines, regardless of sexual orientation. Despite changes in Pap test guidelines, STI screenings recommendations have remained consistent. The new Pap test recommendations, which suggest screening should begin at the age of 21, regardless of sexual history, should make it easier for providers to determine those in need of screening. Even when we restricted our analysis to women aged ≥21 years, most of the sexual orientation group disparities remained. Providers and health educators should be aware of these disparities so that they can provide appropriate care to young women and their families and ensure that all young women receive reproductive health screening. Many adolescents and young adults encounter barriers to HPV and STI screening, such as care site access problems (geography and hours), privacy concerns, and fear of disclosing stigmatized or risky sexual behavior [30]. Sexual minority youth may be further deterred especially in settings perceived as insensitive to their specific concerns. Further research is needed to explore reasons sexual minority females are not accessing care as recommended because this may suggest opportunities to improve reproductive health screenings as well as broader healthcare access issues.

Acknowledgments

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