QUALITY OF SEXUAL & REPRODUCTIVE HEALTH CARE RECEIPT AMONG YOUNG MALES AGED 15-24

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Purpose: Young men experience disparities in sexual and reproductive health care (SRHC) receipt. This study’s goal was to examine extent to which young men receive quality SRHC, as recently recommended by CDC's and OPA’s Providing Quality Family Planning Services, and characteristics of males reporting higher quality SRHC receipt.

Methods: Cross-sectional sample of male patients aged 15-24 recruited from 7 clinics (3 primary care, 2 STD, 2 family planning) over 2-weeks in Baltimore, MD. Patients completed ACASI surveys (in English or Spanish) at visit end. Participation rate was 89%; final analytic sample included 77 sexually experienced males to date. Patients reported on SRHC receipt by doctor assessed here with 4 composite scores summed across items within each domain: sexual history taking (practices, partner number and gender, protection, past STD and HIV test, sexual identity, plans for children); counseling (reducing STD/HIV risk, correct condom use); materials provided (condoms, lubrication); and screening tests (HIV, urine-based STD). Higher scores represent greater quality of service receipt. Patient characteristics assessed included: age; race/ethnicity; sexual attraction; visit reason (annual, STD, other); time since last visit (first visit, <2 years, ≥2 years); and doctor’s gender. Multivariate Poisson regression analyses examined associations between patient characteristics with each SRHC composite score accounting for clinics in cluster design. This study was IRB approved.

Results: Mean (SD) participant age was 20.0 (2.5); 83% were non-Hispanic Black and 8% Hispanic (29% completed Spanish ACASI). Patients were diverse in reports of sexual attraction (77% to females, 16% males, 4% both, 4% not sure); visit reason (88% annual/STD-related, 12% other); and time since last visit (36% first visit, 56% <2 years, 8% ≥2 years). 25% were seen by male doctor. Although some patients reported SRHC receipt (all sexual history questions asked (21%), topics counseled (43%), materials provided (31%), tests performed (48%), respectively), many reported suboptimal SRHC receipt (no sexual history questions asked (9%), topics counseled (21%), materials provided (43%), tests performed (21%), respectively), and only 7% received all SRHC. After controlling for patient characteristics, higher sexual history taking receipt was associated with patients being non-Hispanic Black and white (vs. Hispanic) (aRR [95% CI]=1.60 [1.17-2.19] & 1.70 [1.20-2.41], respectively); attracted to both sexes (vs. females only) (1.24 [1.06-1.44]); and seen for annual/STD visit (vs. other) (2.04 [1.40-2.95]). Counseling receipt was associated with patients being attracted to females only and males only (vs. both sexes) (1.98 [1.26-3.11] & 2.41 [1.36-4.28], respectively); and ≥2 years since last visit (vs. <2 years) (1.36 [1.08-1.70]). Material receipt was associated with patients being seen by male doctor (vs. female) (1.66 [1.32-2.08]). STD/HIV screening receipt was associated with patients being attracted to females only and males only (vs. both sexes) (2.18 [1.71-2.76] & 2.84 [2.02-3.99], respectively); and seen for annual/STD visit (vs. other) (2.36 [1.21-4.61]).

Conclusions: Study findings confirm suboptimal delivery of SRHC to all males and highlights disparities of
SRHC delivery among male sub-populations (Hispanics & males attracted to both sexes). Future work needs to improve providers’ delivery of quality SRHC to all males.

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7. 

ABORTION CONFLICT AS A PREDICTOR OF LIFETIME ABORTION AND MULTIPLE ABORTIONS IN THE CONTEXT OF INTIMATE PARTNER VIOLENCE AND REPRODUCTIVE COERCION

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Purpose: Adolescent and young adult women are at disproportionate risk for intimate partner violence (IPV) and poor reproductive health outcomes including unintended pregnancy. While evidence suggests that IPV is associated with unintended pregnancy via mechanisms including contraceptive non-use, and reproductive coercion, considerably less is known about the associations of IPV and abortion outcomes, and the mechanisms that may mediate these relationships.

Methods: A cross-sectional survey of females ages 16-29 years seeking health care in five family planning clinics in Northern California was conducted from August 2008 to March 2009 as part of a larger intervention study (n=1319; 67% ≤ 24 years; 32% Non-Hispanic Black and 30% Hispanic/Latina). The current sample was restricted to women reporting a lifetime history of pregnancy and who were non-missing on abortion outcomes, intimate partner violence and reproductive coercion (n=744). Adjusted multivariable logistic regression for clustered survey data was used to assess the main effects of abortion conflict (i.e. conflict with a partner about whether to carry a pregnancy to term or have an abortion) and IPV on lifetime abortion and multiple abortions, while models stratified by IPV or reproductive coercion were constructed to evaluate the impact of abortion conflict on lifetime and multiple abortion both in the presence and the absence of abuse.

Results: Among this sample of ever pregnant women, one third reported abortion conflict, 63% reported ever having an abortion, and 27% reported have more than one abortion. In adjusted models, women who reported abortion conflict were more than two times more likely to have experienced lifetime abortion or multiple abortions (AORs 2.09-2.32). Physical IPV was associated with increased risk for both abortion outcomes, while women who experienced sexual IPV were less likely to have had an abortion. Women who experienced reproductive coercion were two times more likely to also have a partner who responded to her pregnancy diagnosis with abuse (AOR 2.11, 95% CI 1.12, 3.99). In stratified models, odds of lifetime and multiple abortions among women who experienced abortion conflict were highest in the presence of reproductive coercion (AORs 4.22-4.32).

Conclusions: Partner conflict and physical violence are common experiences of adolescent and young adult women seeking care at family planning clinics and these exposures influence their decisions following a pregnancy diagnosis. Specifically, fighting with a partner about whether to carry a pregnancy
to term or have an abortion was associated with a greater likelihood of having an abortion or multiple abortions, associations that were strongest in the presence of reproductive coercion. Clinical attention to IPV, reproductive coercion and partner conflict after a pregnancy diagnosis is critical for the well-being of young women seeking care at reproductive health clinics. These findings indicate that confidential and safe spaces are needed to support adolescent and young adult women to make important reproductive decisions and connect them to much needed IPV resources.

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8.

CONCURRENT CONTRACEPTIVE PROVISION TO ADOLESCENT FEMALES PRESCRIBED TERATOGENS IN PEDIATRIC CARE
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Purpose: Rates of adult women receiving contraceptive counseling and/or prescription when simultaneously prescribed a known teratogen are alarmingly low. The prevalence of this behavior among pediatric care providers and their adolescent patients is unknown. The purpose of this study is to describe pediatric provider behaviors regarding prescribing of known teratogens concurrently with counseling and/or prescribing of contraception or referral for contraceptive care (collectively called contraceptive provision) in the adolescent population.

Methods: A retrospective chart review was conducted examining visits in 2008-2012 by female adolescents aged 14-25 in which a known teratogen (FDA pregnancy risk category D or X) was prescribed. The electronic medical records for these encounters were then queried for basic demographic information, any evidence of contraceptive provision (prescription, counseling or referral), and documentation of menstrual and sexual histories. The data was analyzed using standard statistical methods.

Results: During the study time period, 1689 female patients aged 14-25 were identified as having received 4508 prescriptions for teratogenic medications over the course of 4166 clinic visits. The top 5 most commonly prescribed teratogens (in decreasing frequency) were topiramate, methotrexate, diazepam, isotretinoin and enalapril. The top 3 pediatric sub-specialities prescribing these medications were neurology, hematology-oncology, and nephrology. Overall, contraceptive provision was documented in only 1346 of the 4166 (32.3%) visits. Certain patient groups were identified as being more likely to receive contraceptive provision as compared to their peers: Caucasians vs. non-Caucasians (RR 1.49, 95% CI, 1.32-1.66), older girls vs. younger girls (RR 5.89, 95% CI, 4.40-7.88), and those with commercial insurance vs. those with either government insurance or no insurance (RR 2.55, 95% CI, 2.33-2.78). The presence of a formal federal risk mitigation system for the prescribed teratogen (e.g., iPLEDGE or R.E.M.S) increased the chances of a patient receiving contraceptive provision (RR 2.26, 95% CI, 2.07-2.46). Interestingly, prescribers of teratogens were more likely to document a sexual
history in younger girls as compared to older girls (RR 1.40, 95% CI, 1.24-1.59). The presence of a federal risk mitigation system for a prescribed teratogen was associated with less documentation of menstrual (RR 5.5, 95% CI, 3.86-7.27) and sexual histories (RR 1.83, 95% CI, 1.38-2.41) at that visit. All of the aforementioned comparisons were statistically significant (p<0.05).

**Conclusions:** Our data indicate that female adolescents for whom teratogens are prescribed may be receiving inadequate reproductive health counseling which, in turn, could potentially increase their risk for negative pregnancy outcomes. The presence of a federal risk mitigation system appears to positively impact the rates of contraceptive provision in these patients. However, these systems are costly to implement and may not be necessary or appropriate for the majority of medications with known teratogenic effects. Efforts need to be made to remind and educate prescribers about medications with teratogenic potential, as well as adolescent sexual behaviors, and increase prescriber comfort in discussing sexual activity with their adolescent patients. If accomplished, this will improve the knowledge and awareness of the patient and also, enable truly educated contraceptive provision to advance adolescent reproductive health.

**Sources of Support:** Divisions of Adolescent Medicine and Emergency Medicine, CMH

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**PROMOTING ADOLESCENT AND YOUNG ADULT MALE CONTRACEPTIVE KNOWLEDGE: CAN HEALTH CARE PROVIDERS MAKE A DIFFERENCE?**

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**Purpose:** Adolescent and Young Adult (AYA) males can play a significant role in their partners’ reproductive health decisions and consequently are an important target for contraceptive counseling and education. Health care providers (HCP) can promote healthy sexual behavior among their AYA male patients by educating them on contraceptive options and encourage them to have conversations with their sexual partners about healthier sexual behaviors. This study aimed to assess HCP effect on AYA males’ knowledge and attitudes about contraception, the sources of contraceptive information, and their current and desired involvement in contraceptive decision-making in sexual relationships.

**Methods:** We recruited 13-24 year old male patients who presented for any type of outpatient visit at the Adolescent Medicine Clinic (AMC) or Family Planning Clinic (FPC) at Children’s Hospital Colorado from 7/13-2/14. Participants completed a Computer Assisted Self-Interview survey regarding contraceptive knowledge, exposure to information sources, relationship experiences and current contraceptive behaviors.

**Results:** A total of 80 male patients were recruited; the mean age was 19± 3.07 years and over half had had sex in the past month (61%). The majority on young men reported that it is very or somewhat important to prevent pregnancy (82%). Only 14% stated they get the most information about birth control from a HCP. Other commonly reported sources were their parents (20%) girlfriend or partner (15%) or a teacher, coach or counselor (15%). Over half (61%) of AYA males stated they had never talked to a HCP about birth control (other than condoms) and only 39% stated a HCP had talked to them about
birth control in the past. Those that had spoken to a HCP had heard of more methods of birth control (5.5±2.76 vs 3.5±2.42 p=0.001), were more likely to have spoken to their partner about birth control (79% vs 34% p<0.001), and were more likely to know “everything” or “a lot” about birth control and emergency contraception (48.4% vs 18.8% p=.005 and 50.0% vs 12.5% p=0.02). Interestingly, those who had talked to a HCP about birth control were less likely to get the birth control information from friends (3.2% vs 22.7% p=0.02).

**Conclusions:** In this study, AYA males who had conversations about contraception with their HCP had significantly greater knowledge and communication with their partners regarding contraception. Increased attention to reproductive education of AYA males by health care providers may facilitate better contraceptive decision-making and improve partner communication.

**Sources of Support:** none

10.

**DAILY EMOTIONAL AND BEHAVIORAL INTERACTIONS IN YOUNG MEN’S AND YOUNG WOMEN’S SINGLE AND MULTIPLE PARTNER RELATIONSHIPS**

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**Purpose:** Public health risk reduction efforts commonly focus on avoiding multiple-partner relationships, as they can be associated with increased sexual risk behaviors (e.g. inconsistent condom-use). During adolescence, however, young people normatively participate in different romantic/sexual relationships – some of which occur simultaneously (e.g. dating two people). Since emerging relationships support learning to manage emotional and behavioral aspects of sexuality, it is possible that different types of relationships confer specific developmental skills. We compared day-to-day emotional and behavioral interaction differences between adolescent women’s and men’s single and multiple partner relationships.

**Methods:** Data were drawn from two distinct longitudinal sexual health cohort studies of middle-to-late adolescent women (AW: N=385, 14-17 years) and men (AM: N=72, 14-17 years) residing in areas of high rates of unintended pregnancy and STIs. Participants completed daily diaries measuring partner-specific affect and sexual behavior (up to five “partners” in one diary). We classified each diary period as associated with single or multiple (2+) partners; we then compared daily emotions and behaviors across these classifications. Daily partnered-behaviors (all: no/yes) were: kissing/holding hands (AM-study only), touching partners’ genitals, partner touching genitals, receiving or giving oral sex, vaginal sex, anal sex and condom use during vaginal sex and/or anal sex. Daily emotions were: sexual-interest (single, 5-pt item), feeling in-love (single, 5-pt item), partner-support (4-items, \(\alpha=0.93\)), partner-negativity (5-items, \(\alpha=0.83\)), and relationship-satisfaction and sexual-satisfaction (both single, 5-pt item; in AM study only). Generalized estimating equation (GEE) logistic regression analyzed differences in daily partnered-behavior frequency; GEE ordinal or linear regression examined differences in mean levels in daily emotions (Stata v.13). All models controlled for age/race; single-partner was the referent in all models.

**Results:** The majority of all day-to-day partnered interactions were associated with a single partner.
(AW’s: 72%; AM: 88%); when multiple partners were reported, the modal number was two. AM’s daily reports of kissing and hand-holding (OR=8.33-9.08) were eight-to-nine times more frequent with single compared to multiple-partners. Both AW’s and AM’s giving/receiving genital touching (AW: OR=2.63-2.71; AM: OR=3.74-3.78) and giving/receiving oral sex (AW: OR=2.27-2.45; AM: OR=2.86-3.78) occurred between three and four times more often with single-partners. Vaginal sex was about three times as frequent with single-partners among (AW: OR=3.20; AM: OR=2.82). Condom use during vaginal sex was significantly more likely when AW reported multiple-partners (OR=0.45). Neither anal sex nor condom use during anal sex were significantly associated with partner type. AW and AM noted significantly higher levels of love (OR=1.38-1.56) and partner support (OR=2.08-4.66), but lower levels of sexual interest (OR=0.51-0.59), on days with single partners. Single-partner interactions were associated with AM’s significantly higher relationship satisfaction.

Conclusions: Adolescent men’s and women’s partnered behaviors – both “lighter” (e.g. genital touching) and more involved (e.g. vaginal sex) – occurred significantly more often with single-partners. Moreover, single-partner interactions were associated with higher levels of relationally-oriented emotions, while multiple-partner days were linked to sexual-interest. Our data support a model of normative sexual development in which varying relationship contexts may help young men and women learn to balance the complex emotions and behaviors associated with adult sexuality.

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11.

EVENT-LEVEL ATTRIBUTES OF YOUNG WOMEN’S FIRST AND SUBSEQUENT NON-COITAL SEXUAL BEHAVIORS

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Purpose: First vaginal sex is constructed as a significant event imbued with cultural relevance. Voluminous literature documents cultural, social, religious, and psychological influences on first coitus. Comparably little is known about first non-coital behaviors or how healthcare providers can use these behavioral patterns to support adolescents’ healthy sexual development. Accordingly, this study prospectively explored changes in young women’s emotions at first and subsequent non-coital events.

Methods: Data were drawn from a longitudinal cohort study of sexual relationships and sexual/contraceptive behavior in adolescent women (N=385, 14-17 years) residing in areas of high rates of unintended pregnancy and STI. As part of this study, young women completed partner-specific daily diaries measuring individual mood, partner affect and the occurrence of different coital and non-coital behaviors. In the current study, we separately identified young women reporting no experience with a given non-coital behavior, including giving manual-genital sex, receiving manual-genital sex, giving oral-genital sex and/or receiving oral-genital sex. Outcome affective variables were: positive mood (3-items, α=0.86), negative mood (3-items, α=0.83), sexual interest (1 item, 5-pt scale), feeling in love (1 item, 5-pt scale), partner support (4-items, α=0.93) and partner negativity (5-items, α=0.83). GEE ordinal or linear regression compared affective differences (SPSS, 22.0; all p<.05).
Results: Young women’s sexual repertoire included a variety of non-coital behaviors including: giving manual-genital sex (n=11 first events; n=8223 subsequent events), receiving manual-genital sex (n=19 first events; n=8559 subsequent events), giving oral-genital sex (n=43 first events; n=2944 subsequent events), and/or receiving oral-genital sex (n=35 first events; n=3153 subsequent events). Compared to first non-coital events, for subsequent non-coital events young women reported significantly higher feelings of: being in love for giving oral sex (OR=1.69) and sexual interest for receiving oral sex (OR=1.39). Days with subsequent non-coital events also had significantly lower feelings of: negative mood and partner negativity for vaginal touching (b=-.68; p<.001, respectively), giving oral sex (b=-.65; p<.05, respectively), and receiving oral sex (b=-.52; p<.05, respectively). There were no differences in positive mood or partner support across any first and subsequent non-coital events.

Conclusions: While a variety of demographic and social predictors of adolescent sexual behaviors have been explored (particularly as it relates to vaginal sex), the influence of sexual interest, feelings of being in love, mood, and partner negativity have largely been overlooked. Our findings suggest that these variables are independent and driving forces of non-coital sexual behavior. Overall, participation in non-coital events was positive especially as young women gained experience. These emotional correlates of non-coital behaviors likely influence overall sexual development of adolescents as they transition to making decisions about coital behaviors. These results highlight the need to focus on young women’s ability to prevent negative sexual health outcomes (e.g., STIs and unintended pregnancy) and positive emotions (e.g., sexual pleasure, love, and perceptions of partners) as key components of healthy and safe sexual exploration. Using this information, providers can give comprehensive sexual health information to encourage protective behaviors at coital and non-coital events.

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