EXAMINING THE ROLE OF DISCORDANCE BETWEEN IDEAL AND ACTUAL MAIN SEX PARTNERS ON CONTRACEPTION USE AMONG URBAN FEMALE ADOLESCENTS

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**Purpose:** Disadvantaged African-American communities with high rates of incarceration and low male to female sex ratios have the highest rates of teenage pregnancy and lowest rates of contraception use. Low sex ratios along with high rates of unemployment and poverty have restricted females’ choices for ideal male partners. In the context of low partner availability, adolescents often settle for partners that do not meet their ideal characteristics, particularly their preferences for monogamy. Difficulty finding partners who match their preferences may impact adolescents’ contraceptive use. The objective of this study was to examine whether discordance between ideal partner preferences and actual partner characteristics is associated with use of contraception among adolescents from an urban socioeconomically disadvantaged community. Given the low availability of ideal partners, we hypothesize that adolescents whose actual partner meets or exceeds their ideal partner preferences will be less likely to use contraception.

**Methods:** Data were drawn from the baseline assessment of a clinic-recruited cohort of adolescent females, aged 16 -19 at enrollment (N = 122) in Baltimore, MD during 2008-10. Using audio computer-assisted self-interview, participants reported on their contraceptive use at last sex with their most recent main sex partner. Birth control pill, patch, Depo, or Nuva Ring were categorized as hormonal contraception (HC). Participants ranked the importance of ideal partners’ social/economic status, emotional support, physical attractiveness, monogamy and criminal justice involvement. Participants reported on these characteristics for their main partner. Logistic regression was used to examine the association between discordance on ideal and actual partner characteristics and HC.

**Results:** The sample was 97% African-American, 68.7% had maternal education less than high school, mean (sd) age 18.4 (1.1) years. 24% of adolescents had discordance on the social/economic domain, 40% emotional, 6% physical, 64% monogamy and 67% for partner having criminal justice involvement. Adolescents whose partners did not match their ideal in the economic/social [OR:0.17, 95%CI: 0.04-0.80] and monogamy [OR:0.20, 95%CI: 0.06-0.73] domains were significantly less likely to use HC. Adolescents who were discordant in economic/social domains were significantly more likely to have dropped out of high school [OR:7.3, 95%CI: 1.24-43.3], younger age at 1st sex [OR:0.68, 95%CI: 0.49-0.96], and have >2 partners in the last 3 months [OR:2.43, 95%CI: 1.00-5.93]. Adolescents who were discordant in the monogamy domain had associations of similar magnitude and direction.

**Conclusions:** In contrast to our hypothesis, adolescents whose main partners did not achieve their ideal social/economic and monogamy preferences were less likely to use HC. An examination of characteristics of adolescents who had difficulty finding partners who matched their preferences in these domains suggests that these young women may have low motivation to prevent pregnancy. These results have important public health implications, showing that adolescents that are not in ideal
relationships are at high-risk for unintended pregnancy.

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61.

THE IMPACT OF SEXUAL COERCION ON CHANGES IN ADOLESCENT WOMEN’S RELATIONSHIP ATTRIBUTES

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Purpose: Public health perspectives increasingly identify sexual coercion (SC) as a serious health concern among adolescent women. However, little is known about how different aspects of SC impact the trajectory of relationships in which they occur. Understanding how relationship attributes change in response to SC could help clinicians/health educators identify strategies to help adolescent women anticipate and/or avoid future SC events.

Methods: Data were a longitudinal cohort study of sexual relationships of middle-to-late adolescent women (N=385, 14-17 years) residing in areas of high rates of unintended pregnancy and STIs. Participants completed partner-specific quarterly interviews assessing relationship attributes and behaviors. SC outcomes included (all partner-specific, no/yes): gave me money to have sex, made me have sex when I didn’t want to, would get mad if I didn’t have sex, and would break up with me if I didn’t have sex. For each unique partnership, we identified the first quarter in which each SC was first reported, retaining for analysis those observations with available data the quarter-before and the quarter-after this first instance. We then compared changes in relationship attributes and behaviors between the quarter-before and the quarter-of first SC, as well as between the quarter-of and quarter-after first SC. Relationship attributes were: relationship quality (6-items, α=.92 ), sexual satisfaction (5-items, α=.93), sexual autonomy (3-items, α=.86), sexual communication (3-items, α=.85), condom use efficacy (4-items, α=.83), pregnancy prevention intention (3-items, α=.60). Relationship behaviors were: coital frequency (single item), condom use ratio (condom use frequency/coital frequency). Linear regression with bootstrap methods examined each time point pair’s (quarter-before vs. quarter-of; quarter-of vs. quarter-after) mean impact on relationship attributes; all models controlled for age and relationship length (Stata, v.14; all p<.05).

Results: Relationship quality and sexual satisfaction significantly decreased between quarter-before and quarter-of all first SC outcomes; these relationship attributes both significantly increased between quarter-of and quarter-after first instances of a partner’s getting mad or breaking up with them for refusing sex. Compared to the quarter-before, sexual communication was significantly lower in the quarter when a partner first made a young woman have sex when she didn’t want to or threatened to break up with her for not wanting to have sex. Sexual autonomy decreased from first instances of being made to have sex as compared to the quarter-after. Finally, compared to the quarter in which a partner first got mad for a young woman’s refusing sex, sexual communication and pregnancy prevention intentions were significantly higher and coital frequency significantly lower the quarter-before, while sexual autonomy, condom use efficacy and condom use ratio were all significantly lower the quarter-
Conclusions: Attributes of healthy relationships – including quality, satisfaction, communication and autonomy – decline three months in advance of the first instance of a young woman’s reporting of partner-specific sexual coercion, while risky sexual behaviors and attitudes – pregnancy prevention intentions and condom use – remain low following sexual coercion. Our data suggest that adolescent health care providers may be able to proactively identify potentially coercive relationships by asking about changes in relationship attributes during encounters with patients.

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62.

ADOLESCENTS’ CAPACITY TO MAKE TREATMENT DECISIONS FOR BIRTH CONTROL
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Purpose: Over-the-counter access to combined oral contraceptive pills (OTC-COCs) has the potential to decrease unintended pregnancy. Several states are considering OTC-COCs. However, there are no data on adolescent contraceptive decision-making capacity to guide this policy decision. This study examines adolescents’ capacity to make treatment decisions about COCs using a validated adult decision-making competency tool.

Methods: After IRB approval, 14-21 year old women were recruited from Midwest, urban adolescent clinics. Participants completed a demographic survey, underwent a standardized informed consent for COC use, and a validated 40-minute semi-structured interview called the MacArthur Competence Assessment Tool for Treatment (MacCAT-T). The outcome, capacity, was measured by the MacCAT-T. The MacCAT-T consisted of 25 open ended questions divided into 4 subscales to assess the participant’s ability in the 4 areas of competency including: 1) understanding the treatment including risks; 2) appreciation of how the decision would affect them individually; 3) reasoning including logical consistency, balancing risks and benefits, and comparing options; and 4) expressing that they would make a choice themselves. The interviews were recorded, transcribed, and then coded based upon pre-established criteria specific to the decision to use COCs. Predictor measures included age, socioeconomic status measured by family affluence scale, health literacy as measured by REALM-SF, previous use of birth control, and sexual experience. Descriptive statistics, chi-square, t-test, and correlation were applied to determine the relationship between participant demographics, reproductive history, health literacy and competency’s four areas of ability. The transcribed interviews were thematically analyzed with particular attention paid to family planning intentions and decision-making processes. Example themes included pregnancy intentions, acceptability of side effects, and confidentiality. Demonstrative quotes for each theme were highlighted.

Results: Participants (N=19) had a mean age of 17.6 years; race 74% Black, 11% Latina, and 5% Biracial. Most reported penile-vaginal sex (63%) and used birth control (53%). Health literacy mean 6.2 +/- 1, 8th grade level. Family affluence score mean 4.2 +/- 2.1 (range of 4-6 is middle class). Mean participant scores were very high in each subscale of the MacCAT-T. Out of a maximum 4 points for understanding,
the mean of 3.8 +/- 0.2; out of a maximum 6 points for appreciation, the mean of 5.9 +/- 0.2; out of a maximum 8 points for reasoning, the mean of 7.6 +/- 0.5; and all scored the maximum of 2 points for expressing a choice. Because there was so little variability in the outcome measures, all bivariate analyses were not significant. In qualitative analysis effectiveness; safety; unreliability of condoms; acceptability of common side effects; future implications of pregnancy; and menstrual suppression drove adolescents’ choice of combined oral contraceptive pills. Areas of difficulty included medical terminology and imaging consequences, which were interrelated – those with difficulty with medical terminology also had difficulty imagining future consequences of use/non-use of COCs.

Conclusions: Adolescents displayed capacity to make treatment decisions about COCs. Areas of relative difficulty, understanding medical terminology and consequences, could be addressed through more rigorous counseling approaches.

Sources of Support: Indiana University Center for Bioethics, Indiana University Section of Adolescent Medicine

63.

IMPROVING THE SEXUAL HEALTH OF YOUTH WITH MOBILITY IMPAIRMENTS
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Purpose: The purpose of this mixed-method study is to 1) describe sexual health experiences of youth with mobility impairments using quantitative data, and 2) summarize challenges and recommendations for providing sexual and reproductive health services to youth with mobility impairments from the perspective of healthcare providers and experts in the field of physical disability.

Methods: Data were collected from My Path, a study focused on the transition to adulthood for youth with mobility impairments. Online surveys were collected every six months from a community-based sample of youth age 16-24 in the upper Midwest, United States. Data were collected from a total of 340 participants (mean age = 21; 44% female; 91% White; 69% lived in urban settings; 44% had cerebral palsy, 15% had muscular dystrophy, 20% had spina bifida). Data were pooled across 5 waves to provide descriptive profiles of youth who have/have not had sexual intercourse. Statistical comparisons utilized included chi-square and t-tests. In addition, nine individual interviews were conducted with healthcare professionals and leaders in the field of disability using a semi-structured interview guide. Systematic content analysis methods were used to characterize challenges and recommendations related to sexual health for youth with mobility impairments described by healthcare providers and experts in the field.

Results: Much demographic and health variability exists in this unique survey dataset with respect to the sexual experiences of youth with mobility impairments. About 21% of youth (n=70) reported having sexual intercourse in past 6 months; more than half (61%) in this group reported needing or using any mobility equipment. Youth who had sexual intercourse were more likely to be female (60% v. 40%, p < .01), a year older on average (21 v. 20 years, p < .01), nonwhite (13% v. 7%, p < .05), and living with a condition that flares/acts up over time (44% v. 17%, p < .01), compared to counterparts not having sex. Over twice as many of these young people (64%) talked with healthcare providers about pregnancy or
STIs, compared to those not having sex (27%, p < .001). Qualitative data were organized into six categories to describe perceived challenges of providing sexual and reproductive health services: not talking about sex or sexuality, “normal” sexual development, managing sexual development for young women, adaptation and instruction, the role of parents, and safety.

**Conclusions:** Findings demonstrate that sexually active youth with physical disabilities are diverse in experiences and functional abilities, yet gaps in addressing their sexual health needs are clear. Youth with mobility impairments experience sexual maturation that may be exacerbated by additional functional impairments that inhibit sexual behavior and affect intimacy. In the face of these additional challenges, providers often overlook the sexual health needs of youth with mobility impairments. Interventions to improve their well-being should include comprehensive care and education that promotes and supports healthy sexual development.

**Sources of Support:** Funding for My Path data collection was supported by the Centers for Disease Control and Prevention, National Centers for Birth Defects and Developmental Disabilities, grant no. 1U48DP001939 (PI: Scal).

64.

THE IMPACT OF NEIGHBORHOOD DISADVANTAGE ON ADOLESCENT WOMEN’S ROMANTIC RELATIONSHIP DEVELOPMENT

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**Purpose:** Neighborhood-level disadvantage is an influential context for adolescent sexual risk behaviors, yet little is known about how this same context of disadvantage may impact the characteristics of romantic relationships that precede and organize sexual decision-making. Since many partners are met through neighborhood networks, differing levels of neighborhood disadvantage may impact the developmental trajectory of relationship attributes over time.

**Methods:** Data were drawn from a longitudinal cohort study of sexual relationships and sexual/contraceptive behavior in middle to late adolescent women (N=385, 14-17 years) residing in areas of high rates of adolescent pregnancy/STI. Individual and partner-specific quarterly interviews elicited information on residential zip code and relationship emotional and behavioral content. Using this zip code, we used publically available websites to extract neighborhood-specific disadvantage information. Relationship variables were: relationship quality (6-item index; alpha=0.94), sexual satisfaction (7-item index; alpha=0.95), sexual communication (3-item index; alpha=0.85), sexual autonomy (4-item index; alpha=0.90), condom use efficacy (6-item index; alpha=0.91), impulsive reasons for sex (5-item index; alpha=0.80) and emotional reasons for sex (5-item index; alpha=0.90). Neighborhood disadvantage was: economic deprivation (percent below poverty, percent unemployed, median income; alpha=0.96), residential instability (population density, percent owner occupied, percent houses/rentals vacant, percent population under 18; alpha=0.76), race/ethnicity concentration (percent each: African-American, immigrant, and Hispanic; alpha=0.85) and one single item, male-female ratio. Linear mixed effects growth modeling evaluated the impact of neighborhood-level traits on
the trajectories of relationship-specific variables (Stata, v.13). Random effects approaches allowed the intercept and slopes to vary randomly across neighborhoods and to account for clustering within relationships. All models controlled for age and race/ethnicity.

**Results:** Development in all relationship attributes varied significantly across neighborhoods (all p<.05; intraclass correlation coefficient: 0.07 to 0.26). A higher ratio of men to women in a given neighborhood was associated with lower relationship quality (p=.049), lower sexual communication (p=.023) and lower condom use efficacy at the start of a relationship (p=.022), and with more rapid growth in impulsive reasons for sex over time (p=.002). Higher economic deprivation was associated with lower sexual autonomy (p=.007) and lower condom use efficacy (p=.035) at the start of a relationship, and with slowed growth in relationship quality (p=.068), condom use efficacy (p=.045) and emotional reasons for sex (p=.005) over time. Greater residential instability was associated with lower sexual autonomy at the start of a relationship (p=.004), and with slower growth in relationship quality (p<.001), sexual satisfaction (p=.068), sexual communication (p=.049), condom use efficacy (p=.002) and emotional reasons for sex (p=.003). Neighborhood race/ethnic concentration did not significantly impact relationship development.

**Conclusions:** Different aspects of neighborhood disadvantage negatively impact development of important attributes in young women’s romantic/sexual relationships. These results suggest that clinician and health educator strategies to help adolescents cultivate healthy relationships should additionally consider the neighborhood context in which young people live, rather than solely targeting characteristics within a given relationship. Further, these data also suggest that community development supporting programs and policies could play an important role in reducing negative sexual health outcomes (e.g., unintended pregnancy and STIs).

**Sources of Support:** U19AI0314918, R01HD044387

65.

**ADAPTING AN EVIDENCE-BASED TEEN PREGNANCY PREVENTION PROGRAM FOR ADOLESCENTS WITH ADVERSE CHILDHOOD EXPERIENCES**

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**Purpose:** Evidence based teen pregnancy prevention programs (EBPs), many initially developed in school and community settings, are increasingly being used for adolescents with adverse childhood experiences (ACEs). We describe the process of adapting an EBP for use in foster care and juvenile justice.

**Methods:** Indiana Proud and Connected Teens (IN-PACT) is a federally funded project to provide EBPs to adolescents in foster care agencies and juvenile corrections. Drawing on youth development principles, IN-PACT adapted a longer youth development oriented EBP, rather than using a short information and skills based EBP. Originally a 9 month school EBP, the youth development EBP selected provided content in pregnancy prevention, healthy relationships, and communication alongside a service learning project. We used an ethnographic and mixed methods approach, meeting with program partners to
assess needs and constraints prior to implementation, observing sessions with youth during implementation, participating in program staff meetings, interviewing facilitators, examining facilitator journals and notes, and using descriptive statistical analysis on federal performance measures, including completion rates. Qualitative data were analyzed for common experiences across programs. We first identified problems, and then identified adaptations to address the problem. Data analysis was ongoing, with adaptations implemented in real-time.

**Results:** Problems requiring adaptation were related to both the youths’ adverse childhood experiences, and situational constraints. Early meetings with program partners in foster care identified the potential for distress due to past traumas. To address this concern, in foster care groups, we used two facilitators, pairing a sex educator with a trained mental health counselor. The mental health counselor functioned as a facilitator, but would work individually with a participant who appeared distressed. Juvenile justice environments are often characterized by hyper-masculinity. Participants’ need to publically abide to hyper-masculinity and homophobia added complexity to discussions of tolerance, sexual diversity, and healthy relationships. Facilitators specifically addressed these issues in setting ground rules before and during discussions. Baseline surveys demonstrated that many had been pregnant or given birth, or, for males, caused a pregnant or fathered a child. As a result, facilitators addressed secondary prevention and parenting. Situational constraints included low rates of program completion during the first year (60%), with attendance logs suggesting that program participation dropped off after 3-4 months. For adolescents in the juvenile justice programs, many were released to families and communities prior to program completion; for adolescents in foster care, many switched placements or moved agencies. Knowing that these situational constraints existed, we had initially obtained permission from the program developer to shorten the program to 6 months. Based on year 1 data, were obtained permission and further adapted to 3 months for juvenile justice and 4 months for foster care, with a small increase in completion in year 2 (65%).

**Conclusions:** Adolescents with ACEs have distinct content needs and structural constraints when considering youth development focused sex education. This will require both the adaptation of existing EBPs as well as the development of new EPBs.

**Sources of Support:** HHS-2012-ACF-ACYF-AK-0284 to Health Care Education and Training, Inc.
environment at reducing pregnancy for youth in foster care by supporting access to and utilization of contraceptive methods.

**Methods:** To support health and resiliency The SPOT youth center in St. Louis, Missouri established the Creating Options and Choosing Health (COACH) clinic, a medical home for youth in foster care. All youth ages 13-17 who enter foster care through the St. Louis City or County courts may be referred to COACH for a comprehensive assessment within 30 days of entry into foster care and for ongoing primary care through age 24. The COACH clinic provides access to a drop-in center with food, transportation (to and from the center), a dedicated case manager, and mental health providers. All the staff is trained in positive youth development and trauma-informed care. A retrospective chart review was conducted on all patients entering the COACH clinic, between November 2011 and May 2015. Descriptive statistics were used to determine the proportion and the percentages.

**Results:** A total of 154 youth entered care with COACH, 71.4% (n=110) were female, and 72.7% (n=80) of these females reported sexual activity. Only 52.5% (n=42) of females had used a hormonal contraceptive method prior to COACH and 17.7% (n=14) had a pregnancy. At COACH 87.5% (n= 70) of sexually active females received a hormonal contraception. The most common contraceptive method chosen was Depo-Provera (n=45), followed by combined oral contraceptive pills (n=27) and Implanon/Nexplanon (n=21). Contraception adherence was high; with 69.2% (n=45) returning for a subsequent contraception visit. COACH’s primary care model was able to provide dental (n=40), psychiatric (n=24), immunization (n=47), and/or case management services (n=31) to 98.5% of sexually active females.

**Conclusions:** In our model of care we were able to increase access to hormonal contraception (from 51% to 81%) for young women in foster care and encourage them to return for multiple contraceptive visits. Attention to the environment and supports for youth in foster care were well utilized. Special attention to welcoming and consistent places and services for youth in foster care holds promise to increase access to reproductive health.

**Sources of Support:** OAH - Supported the establishment of the COACH Clinic. The Study was self funded.

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**ASSOCIATION BETWEEN THE NEIGHBORHOODS YOU LIVE IN AND SEXUAL AND REPRODUCTIVE HEALTH IN BALTIMORE, MD**

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**Purpose:** The environment has a large effect on adolescents’ health, impacting where they exercise, what they eat, and who their available sexual partners are. In terms of sexual health STIs are transmitted through sexual networks in neighborhoods where riskier behavior is more common. This paper explores the contextual and individual factors that are associated with riskier sexual activity amongst adolescents – non condom use and engagement in sexual activity at an early age.

**Methods:** Data for this research come from the Well-being of Adolescents in Vulnerable Environments study. Eligible participants were recruited via Respondent-Driven Sampling, between the ages of 15-19, resided in the target neighborhoods, and completed a 20-30 minute ACASI survey on a laptop. Key
independent variables are neighborhood factors such as percent of female headed households, percent of neighborhood residents with a high school degree, or percent of vacant homes in the neighborhood. Neighborhood is defined by neighborhood statistical area in the City of Baltimore. Key dependent variables are condom use at first sex, condom use at last sex, and early sex (<14). 426 respondents (male n=245, female n=181) are included in the sample and all models are stratified by gender. Logistic regression models were fitted to evaluate the odds ratios and 95% confidence intervals (CIs).

**Results:** Having an adult present in one’s life who provides social support was associated with a higher odds of using a condom at last sex for boys and girls. In contrast, observing violence was associated with less condom use for both. For girls, early puberty and being older were associated with less use while for boys being raised by someone other than two parents was. For girls, as the percent of vacant homes in a neighborhood increased, they were more likely to use condoms, while the opposite was true for boys. More college-educated people in one’s neighborhood and a higher median income were associated with increased usage for boys. There were fewer associations found between condom use at first sex and the predictors. For females, a higher score on the masculinity scale was associated with less usage while the opposite was true for boys. More observation of violence was associated with less condom use at first sex for boys. Finally, there were no significant associations for boys in terms of early sex. For girls, more social adult support was associated with a lower odds of having engaged in early sex as was a higher masculinity score. A higher percent of vacant homes, female headed households, and college-educated neighbors were associated with lower odds of early sex while observing violence and a higher median income were associated with a higher odds.

**Conclusions:** There are differences in SRH outcomes and risks even for the most at risk youth – those who live in poor, urban neighborhoods. Neighborhood and individual factors are important predictors of risky sexual behaviors for males and females.

**Sources of Support:** AstraZeneca, NIH