38. A Closer Look at the Developmental Interplay Between Parenting and Perceived Health in Adolescents with Congenital Heart Disease.
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**Purpose:** Previous research has found substantial associations between parental behaviors and quality of life, perceived health, depressed mood, and treatment adherence in adolescents with chronic illness. However, prospective research investigating the extent to which parenting develops in tandem with these indicators of adjustment is non-existent. Such research is vital for identifying vulnerable individuals who may benefit the most from prevention and intervention efforts. In the present study, we therefore sought to (1) identify clinically meaningful trajectory classes of maternal and paternal parenting and generic and illness-specific perceived health; and (2) examine how these trajectory classes of parenting and perceived health relate to one another.

**Methods:** Adolescents with congenital heart disease (CHD) were selected from the database of pediatric and congenital cardiology of the University Hospitals Leuven. A total of 429 adolescents (Mage = 16; 47% girls) participated in the present longitudinal study, comprising four measurement waves spanning approximately three years (i.e., intervals of 9 months). Adolescents completed questionnaires on maternal and paternal parenting (i.e., the presence of responsive, regulating, and psychologically controlling behaviors and attitudes) and both generic (e.g., social- and school-related functioning) and illness-specific domains of perceived health (e.g., cardiac symptoms and treatment anxiety). Covariates included sex, age, and illness complexity. Latent class growth analysis was used to identify trajectory classes of parenting and perceived health. Trajectory classes can be operationalized as collections of individuals who follow approximately the same developmental trajectory.

**Results:** The present study identified six parenting trajectory classes: democratic, overprotective, indulgent, authoritarian, psychologically controlling, and uninvolved parenting. Mothers were found to be overrepresented in the overprotective parenting class (33% versus 21%), whereas fathers were overrepresented in the indulgent parenting class (26% versus 13%). Up to 90% of adolescents showed moderate to optimal perceived health over time. Chi-square analyses showed a significant relationship between the class solutions for perceived health and both maternal ($\chi^2(10) = 40.09, p < .001; \text{Cramér's V} = .22, p < .001$) and paternal ($\chi^2(10) = 36.12, p < .001; \text{Cramér's V} = .21, p < .001$) parenting. Adolescents from democratic families fared best in terms of perceived health, whereas adolescents perceiving their mother as indulgent or authoritarian and/or their father as psychologically controlling showed relatively poor perceived health over time.

**Conclusions:** In the present study, a small but substantial subgroup of adolescents with CHD was found to struggle with their illness, as evidenced by poor generic and illness-specific perceived health over time. The present findings suggest that working on the parent-adolescent relationship might be an effective pathway for improving the perceived health of these adolescents. In doing so, health professionals should not only stress the importance of a warm and supportive climate at home. They should also encourage parents to foster autonomy and individuation in their children. Further, the present findings point to the importance of involving both parents in these educational efforts, as both maternal and paternal parenting were found to relate to patients’ perceived health.

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The Risk of Unintended Pregnancy Among Young Women with Mental Health Symptoms
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Purpose: Depression and stress have been linked with poor contraceptive behavior, but whether existing mental health symptoms influence women’s subsequent risk of unintended pregnancy is unclear. We prospectively examined the effect of depression and stress on young women’s unintended pregnancy risk over one year.

Methods: We used panel data from a longitudinal study of 992 U.S. women ages 18-20 years, 97% of whom reported a strong desire to avoid pregnancy. Weekly journals measured relationship, contraceptive, and pregnancy outcomes. We examined 27,572 journals from 940 women over the first year. Our outcome was self-reported pregnancy. At baseline, we assessed moderate/severe depression (CESD-5) and stress (PSS-4) symptoms. We estimated the effect of baseline mental health symptoms on pregnancy risk with discrete-time, mixed-effects, proportional hazard models using logistic regression.

Results: At baseline, 24% and 23% of women reported moderate/severe depression and stress symptoms, respectively. Ten percent of women became pregnant during the study. Rates of pregnancy were higher among women with baseline depression (14% vs. 9%, P=0.04) and stress (15% vs. 9%, P=0.03) compared to women without symptoms. In multivariable models, the risk of pregnancy was 1.6 times higher among women with stress compared to those without stress (RR 1.6, CI 1.1,2.7). Women with comorbid stress and depression symptoms had over twice the risk of pregnancy (RR 2.1, CI 1.1,3.8) compared to those without symptoms. Among women without a prior pregnancy, having both stress and depression symptoms was the most strongly associated predictor of subsequent pregnancy (RR 2.3, CI 1.2,4.3), while stress alone was the strongest predictor among women with a prior pregnancy (RR 3.0, CI 1.1,8.8). Having depression symptoms alone was not associated with women’s pregnancy risk.

Conclusions: Stress consistently, negatively influenced young women’s risk of unintended pregnancy over one year. Women with comorbid mental health symptoms had the highest pregnancy risk.

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Correlates of Consistent Use of Effective Contraceptive Methods Among Male and Female Adolescent and Young Adult Soldiers in Training
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**Purpose:** Over 50% of pregnancies among adolescents and young adults in the US are unintended. Similar to civilians, the high rates of unintended pregnancy (UIP) in Army soldiers are, in part, attributed to ineffective and inconsistent use of contraceptive methods. This study aimed to identify the sociodemographic, psychosocial, and behavioral factors associated with consistent use of effective contraceptive methods (consistent-effective use) in male and female soldiers in training.

**Methods:** This cross-sectional study reflects baseline data of a randomized-controlled intervention trial to prevent sexually transmitted infections and UIP in Army soldiers, aged 17-36 years, during their first year of military service. Participants completed a self-administered baseline questionnaire, including measures on sociodemographic factors (gender, age, race/ethnicity, marital status, education), psychosocial factors (condom and UIP knowledge, condom and UIP attitudes, perceptions of vulnerability for UIP, and perceptions of self-efficacy, behavioral skills and behavioral intentions for preventing UIP) and behavioral risk factors (age at coitarche, number of sexual partners, history of prior unintended or intended pregnancies, and type and frequency of contraceptive method(s) used). Bivariate logistic regression analyses were performed to determine variables for entry into the multivariate analyses. Iterative implementation of a two-block hierarchical logistic regression model identified statistically significant correlates of consistent-effective use (i.e., use of any of the following during each sexual encounter: condoms, contraceptive pills, contraceptive patch, contraceptive ring, contraceptive implant, contraceptive injection, intrauterine device, sterilization, avoidance of vaginal sex, and sex with only same-sex partner).

**Results:** Only participants who reported a history of sexual experience (n=672, 93.5%) were included in this research. Participants were young (mean age=21), male (86.2%), racially/ethnically diverse (51.8% white, 22.2% black, 16.4% Hispanic, 9.6% other) and unmarried (87.2%). Overall, 26.6% reported a prior pregnancy of which 76.9% reported an UIP and 22.2% were consistent-effective users. Compared with non-consistent-effective users, consistent-effective users were significantly more likely to report: higher condom (OR=1.90, CI=1.16-3.12) and UIP knowledge (OR=1.82, CI=1.18-2.80), more positive condom attitudes (OR=1.36, CI=1.05-1.75), disagreement that their sexual behaviors place them at high UIP risk (OR=0.36, CI=0.14-0.95), neutral agreement that UIP would hurt their career (OR=1.85, CI=1.09-3.15), higher levels of behavioral skills (OR=2.53, CI=1.42-4.51), greater behavioral intentions for preventing UIP (women only; OR=7.91, CI=1.86-33.65), and no prior unintended (OR=0.30, CI=0.10-0.93) or intended pregnancies (OR=0.56, CI=0.32-0.97).
Conclusions: Consistent-effective contraceptive use is associated with having knowledge, positive condom attitudes, lower perceived UIP risk, and behavioral skills to prevent UIP. With the exception of behavioral intentions for preventing UIP, no gender differences were found. UIP prevention interventions to increase consistent-effective use in adolescents and young adults are still warranted.

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Predicators of IRB Risk Categorization and Approvability in Adolescent Sexual Behavior Research
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Purpose: Research on adolescent sexual behavior presents challenges for IRBs. Investigators and IRBs struggle with pediatric risk categorizations and often there are long delays in approvals. Investigators and IRBs must be knowledgeable about complex state healthcare consent laws, reporting requirements, federal regulations, and best practices. State laws are variable: while all allow minor consent for STI services, only a subset address pregnancy services. We surveyed IRB members, IRB staff, and investigators that submitted protocols involving adolescents. We examined the influence of knowledge of Indiana healthcare consent laws, best practices, federal research regulations, and self-efficacy on risk categorization and approval of a survey of adolescent sexual behavior.

Methods: Adolescent protocols at Indiana University are evaluated by a university-wide IRB. IRB members, IRB staff, and investigators that submitted protocols involving adolescents were invited to participate in an online survey of their knowledge, attitudes and approach to research with vulnerable populations, including adolescents. Response rate was 52%. Predictor variables included knowledge about healthcare consent laws on emergency services, contraception, drug treatment and STIs, knowledge about reporting requirements on statutory rape, drug use and child abuse including sex with minors, knowledge of federal research regulations and SAHM guidelines, and self-efficacy in reviewing protocols. For the outcome variable, participants read a brief hypothetical research scenario of a single, anonymous survey of 11-14 year-olds about their sexual behaviors, including oral, vaginal, and anal sex. Participants were asked to provide a pediatric risk categorization and to state whether they felt it was approvable. We created a composite outcome variable combining correct risk classification (Category 1) and assessment of approvability, with higher scores indicating correct risk categorization and approvability. Structural equation modeling (AMOS 21.0; all p<.05) was invoked to evaluate structural relationships.

Results: Participants (N total =159) included 9 IRB staff, 68 IRB members and 117 investigators (multiple roles possible). Investigators included both adolescent researchers as well as subspecialists such as pediatric oncologists and gastroenterologists whose research includes adolescent aged participants. 41% of the sample correctly identified the scenario as a risk category 1 and 53% reported it as approvable. Respondents who correctly answered about Indiana health care consent law for sexually transmitted disease diagnosis and treatment scored better on their overall assessment of the scenario’s risk category and approvability (B=.22). Knowing that providers do not need to report consensual sex between two 14-year-olds similarly scored better on their overall assessment of the scenario’s risk category and approvability (B=.12). However, beliefs that adolescent may consent for contraception services predicted lower scores (B=-.17). Other predictors were non-significant.
Conclusions: Risk categorization and approval of adolescent protocols is related to clinical knowledge of health care consent laws and mandated reporting requirements. The negative association of beliefs about consent for contraception may be due to Indiana law’s silence on the issue and resultant misperceptions. Our findings suggest that adolescent providers, with their intimate knowledge of adolescent-related laws, regulations and best practices, may be positioned best to evaluate adolescent research, and that IRBs should have adolescent health representation on their boards.

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It Takes a Village - or Does It? A Longitudinal Analysis of Social Support in Teen Mothers and its Relationship to Maternal Self-Esteem Around Parenting

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Purpose: A teen mother’s perceived social support has been shown to be inversely related to depression and stress. However, little is known about the trends in social support for teen mothers beyond the first few months postpartum, and gaps remain in understanding the relationship between social support, social stress, and maternal self-esteem around parenting. We sought to describe the types and levels of partner, family, and non-family support that teen mothers receive over the first 3 years of parenting, and to examine the associations between social support, social stress, and maternal self-esteem over time.

Methods: Participants were 135 urban, low-income teen mothers enrolled in a teen-tot program where they received medical care and social work support. 36% were African American, and 56% Latina; mothers’ mean age at enrollment was 17.4±1.1 years. 90% were insured through Medicaid. Data were collected prospectively, using a computerized questionnaire at intake (2 months postpartum), 12, 24, and 36 months postpartum. Social support and stress data were drawn from questions regarding income and other supports from mother’s family and father of the baby (FOB), as well as the 24-item Duke Social Support and Stress Scale (DUSOCS). The 26-item Maternal Self-Report Inventory (MSRI) assessed multiple domains of maternal parenting self-esteem. Data were analyzed with repeated measures modeling using generalized estimating equations (GEE) with time as the only predictor to test for change over time in the support indicators. The relationship between social support and MSRI was examined using GEE linear modeling, controlling for teen mothers’ demographics and other sources of support.

Results: Social support declined over the study period in most domains, including receiving housing or income from the teen mother’s family (Wald chi-square p<0.001 for both), receiving income or child care support from the FOB (p<0.001 for both), and in family support overall as measured by the DUSOCS (p<0.001). Childcare help from family was relatively preserved (90% at baseline, 88% at 36 months) as was living with the FOB or partner (25% at baseline and 36 months). Participation in federal cash assistance and SNAP increased over the period, as did employment (p<0.001 for all). Family-related stress declined during the period (p=0.003), while non-family related stress showed little change (p=0.853). Maternal parenting self-esteem was high at intake (mean score 114.0±10.8 [26-130 score range]) and showed little change over time except for an increase in the “perceptions of the child-bearing experience” subscale score (p=0.004). We found a marginally significant positive relationship between family support and maternal self-esteem (p=0.09 in adjusted model). In contrast, social stress had a significant negative association with maternal self-esteem (p=0.02), driven primarily by family-related stress(p=0.009, p=0.004). We found no association between maternal self-esteem and support from the FOB.

Conclusions: Teen mothers’ perceived social support and social stress appear to decline during the first 3 years of their child’s life. Family-related stress may negatively impact a young mothers’ view of her parenting abilities. Interventions for young families should assess for social stressors, while bolstering support wherever possible.

Sources of Support: Office of Adolescent Pregnancy Programs APH 000178
Attachment Style and Risk for Sexually Transmitted Infections Within a Prospective Cohort of Urban Adolescent Females

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Purpose: Attachment theory posits that bonds developed to caregivers early in life predispose individuals to different romantic relationship experiences in adulthood. Previous research suggests that attachment style determines romantic partner preferences and behaviors within relationships. Studies have found that adolescents with insecure attachment styles experience a higher frequency of risky sexual behavior due in part to issues with intimacy and trust. The objectives of this study were to prospectively: 1) examine the predictive value of attachment style on incident sexually transmitted infections (STI) in a cohort of urban adolescent females, and 2) determine whether STI risk was a result of individual behaviors or partner selection.

Methods: A clinic and community recruited cohort of adolescent females, aged 16 -19 at enrollment (N = 122) were interviewed quarterly for 18 months using audio computer-assisted self-interview. The forced choice attachment measure was used to assess attachment style. At each interview, participants reported on their own and their current sex partner’s sexual and substance use behaviors. Participants ranked the importance of characteristics for their ideal main sex partner and then reported on these characteristics for their current main sex partner at each interview. Participants’ urine was tested for gonorrhea and chlamydia quarterly. Generalized estimating equations examined the repeated measures.

Results: Fifty-three percent of the cohort had an insecure attachment style. Adolescents with insecure attachment style were twice as likely to become infected with an STI (GC and/or CT) compared to adolescents with secure attachment style [OR: 2.00, 95% CI: 1.002, 4.00]. Insecure adolescents were no less likely than secure adolescents to have discordance between ideal and actual partner characteristics, to have lower ideal partner preferences, nor to choose sex partners who had STI risk behaviors. Insecure adolescents did not report lower feelings of intimacy or trust for their partner compared to securely attached adolescents. Insecure adolescents were more likely to have a greater number of sex partners [OR: 2.68, 95% CI: 1.49,4.83], have concurrent sexual partners [OR: 2.00 95%CI: 0.98,4.09], to use alcohol [OR: 3.80, 95%CI: 1.27,11.4] and to do something unplanned sexually after drinking [OR: 2.16, 95%CI: 1.12,4.15].

Conclusions: Adolescent females with insecure attachment style were at increased risk for STI. STI risk appeared to be a result of individual behavior and not selection of risky sex partners, nor compromise on desired sex partner characteristics. Our findings suggest that insecure attachment style, identified using a brief assessment tool, may be an indicator of an adolescent females’ vulnerability toward behavior that puts her at risk for an STI.

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An Evaluation of the Effects of Participation in El Joven Noble on Youth Violence
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Purpose: This study examined the effects of participation in El Joven Noble on the perpetration of School Violence, Non-School Violence, and Intimate Partner Violence among middle and high school students in a Disciplinary Alternative Education Program (DAEP) in an economically disadvantaged and predominantly Latino school district. El Joven Noble, a youth development curriculum that promotes responsible and respectful behavior in relationships with significant others, is currently being used in more than twenty states in the USA. In this study, The Teen Medical Academy, a health career promotion program, was implemented as an attention control program.

Methods: The study used a quasi-experimental Intervention/Control with repeated measures design. The study was conducted during six consecutive school semesters. During three semesters, high school students in the DAEP were invited to participate in El Joven Noble, while middle school students were invited to participate in the control program, the Teen Medical Academy. During the other three semesters, program offerings were reversed. Both programs consisted of eighteen 45-minute sessions conducted twice a week. Students participated for the duration of their stay in the DAEP. Participants self-reported past 30 day perpetration of acts of School Violence, Non-School Violence, and Intimate Partner Violence through a confidential questionnaire at baseline and at 3 and 9 months post-enrollment in the study. Program (intervention vs. control), grade level (middle vs. high school), and gender (male vs. female) effects at 3 and 9 months post-enrollment were examined using three Analyses of Covariance Models (ANCOVAs). Covariates in each of the models included the baseline measure of the dependent violent outcome and the time congruent measure of exposure to community violence, presence of significant depression symptoms, level of alcohol use, level of marijuana use, and academic achievement motivation. When statistically significant interactions were present in the ANCOVA models (p<.10), post hoc analyses with pairwise comparisons were conducted. A Sidak adjustment for multiple comparisons was used to determine statistical significance.

Results: No significant baseline demographic differences were found between the participants of the intervention (n=183) and control (n=192) programs. 91% of the participants were Latino, 74% were male, and 51% were in high school. The ANCOVA models for School Violence and Non-School Violence demonstrated statistically significant program by grade level by time interactions (p<.10). Post hoc analysis demonstrated higher levels of School Violence (p=.02) and Non-School Violence (p=.003) at nine months post-enrollment among high school students who participated in El Joven Noble as compared to high school students who participated in the Teen Medical Academy. The Intimate Partner Violence model demonstrated that students who participated in El Joven Noble reported higher levels of violence than students who participated in the Teen Medical Academy (p=.04). With the exception of level of marijuana use, all of the covariates were statistically significant predictors of the violence outcomes.

Conclusions: In this study, students who participated in El Joven Noble did not report lower levels of violence as compared to students that participated in a health career promotion program.

Sources of Support: The National Institute of Child Health and Human Development
Impact of Age and Prior Care on Barriers to Engagement in HIV Care for HIV Positive Women of Color
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**Purpose:** Women of color with HIV infection are more likely to have sporadic care and poor outcomes. This paper describes a cohort of HIV+ women enrolled prospectively in a national study as part of the Health Resources and Services Administration Special Projects of National Significance Women of Color Initiative. This analysis examines barriers to care, comparing young women ages 18-24 to those ages 25-39, and how these change over time.

**Methods:** Women entering HIV care between November 2010 and March 2013 were enrolled. This paper reports on the Brooklyn, NY cohort, from three hospital-based clinics and one community-based clinic. Participants were recruited by peer outreach workers who contacted both new to care and at-risk of dropping out of care. Data were collected through face-to-face surveys at baseline enrollment and 6 months follow-up (data are also being collected at 12 and 18 months but data collection is ongoing). Survey data included socio-demographic, CDC HR QOL-14, 30 barriers to care collapsed into personal, provider, and system barriers, health history, current ART status, and AIDS diagnosis. Six-month follow-up data repeated health, behavioral, and barriers to care. ANOVA models were constructed to examine the relationship between age and barriers to care at the two time points, controlling for prior HIV treatment status (new to care/received prior care). Data analysis was restricted to women under age 40, dichotomized into two groups: ages 18-24 and ages 25-39.

**Results:** To date, 78 women have enrolled under age 40, of whom 56 (71.9%) returned for follow-up at 6 months. There were equal numbers (n=28, 50.0%) aged 18-24 and aged 25-39 and equal numbers in HIV care status, specifically new to care and prior experience in care (n=28, 50.0% each); 11 (19.6%) had an AIDS diagnosis and 36 (64.3%) were on ART. Forty-three (76.8%) were African American and the rest Latina, 71.4% (n=40) were single, 78.5% (n=44) had Medicaid, 51.9% (n=29) high school graduates, and 30.4% (n=17) were unstably housed. No differences were found between age groups in HIV care status, health status, or AIDS diagnosis at either time. The ANOVA models showed age was significantly related to overall barriers and personal and provider barriers at baseline and follow-up controlling for prior experience in care, where adolescent women reported significantly fewer barriers at both baseline and follow-up. Prior experience in HIV care was also significant, controlling for age.

**Conclusions:** Young women perceive fewer barriers to care than young adult women controlling for experience in HIV care, specifically with respect to perceived provider barriers (making one feel uncomfortable, being unable to schedule appointments, etc.). This may be a reflection of youth <25 being eligible for enhanced services but merits further research in how young women with HIV perceive care so that retention is optimized. Policy toward treatment of women may focus on ways of being culturally and age appropriate. Changes in Ryan White CARE Act funding as a result of the Affordable Care Act should reflect these needs.

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