REDUCING HEALTH DISPARITIES IN UNINTENDED PREGNANCIES AMONG LATINA ADOLESCENTS USING A PATIENT-CENTERED COMPUTER-BASED CLINIC INTERVENTION
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Purpose: Despite declines in adolescent pregnancy and birth rates in the U.S., significant disparities remain. Latinas continue to have disproportionately higher rates of unintended pregnancy that places them at risk for experiencing adverse health, economic and social consequences. Access to accurate, comprehensive and confidential sexual health information and services are critical to support adolescents in selecting and using effective contraception. Yet, adolescents’ knowledge of contraception is poor; the number of options can be overwhelming; and stigma and discomfort with sexual health are barriers to care – especially for Latina youth. Clinicians often lack the time, comfort and/or skill to provide comprehensive education and care for adolescents. Health-E You/Salud iTu, an innovative, interactive, individually tailored mobile health application (app) in English and Spanish, was developed in partnership with adolescents and clinicians and informed by social cognitive theory. This study evaluated the extent to which Health-E You supports contraceptive decision making among Latina adolescents; improves the effectiveness and efficiency of the clinical encounter and improves contraceptive use.

Methods: A cluster randomized controlled trial of 18 school based health centers with 1,360 Latina adolescents was used to evaluate the effectiveness of the app. Clinics provided all adolescent girls with an iPad. The iPad assessed eligibility and obtained consent. Participants in the intervention clinics received the app and those from control clinics received standard of care sexual health questions. Health-E You gathers important information important in selecting contraception and then, based on user-input and customized pathways, the app provides individually tailored contraceptive recommendations while allowing users to learn more about any method. At the end, the app asks them to select the method(s) they would like to use. App recommendation(s) and user selections are printed for the clinician. In addition to the baseline/pre-visit questionnaire, participants were asked to complete follow-up surveys within 48-hours, 3 and 6 months after the visit. Differences in adolescents’ contraceptive knowledge, attitudes, self-efficacy and use over the 6-month follow up was assessed by mixed effects regression models that included group (intervention vs. control), a time effect, the time by group interaction, and demographic covariates.

Results: There were significant increases in knowledge (p<.001) and contraception use self-efficacy (p<.001) among app users at immediate follow-up. Compared to controls, app users also reported significantly larger increases in prevalence of non-barrier contraceptive method use from baseline to 3 months (p=.042) and 6 months (p=.005). Clinicians and adolescents reported that the app improved the quality and efficiency of the visit.

Conclusions: Health-E You provides patient-centered contraceptive decision-making support. It increased contraceptive knowledge, self-efficacy and use among Latina adolescents. The app helped prepare patients to choose contraception and discuss their contraception needs with their provider. It
also served as a “clinician extender” by providing a risk assessment and personalized education prior to the face-to-face encounter and supports clinicians in providing a more patient-centered approach to contraceptive care. Research is needed on how to use the app outside of the clinical context and to examine if it can support adolescents prior to sexual debut.

**Sources of Support:** Patient Centered Outcomes Research Institute: AD-1502-27481

31.

**EVALUATION OF THE RE:MIX TEEN PREGNANCY PREVENTION PROGRAM FOR LATINO YOUTH**

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*Child Trends*

**Purpose:** This presentation introduces Re:MIX, a comprehensive in-school sexual health education and youth development curriculum for adolescents. Young parents serve as peer educators and teach alongside professional health educators to deliver information via non-traditional approaches, including game-based tools, technology and storytelling. Re:MIX challenges participants to re-think traditional gender norms regarding masculinity, femininity, and genders’ impact on reproductive health outcomes, including unplanned teenage pregnancy. The presentation will describe the curriculum, student characteristics, the randomized-control trial design, and implementation findings. We will also present impact findings on short-term mediating outcomes for Re:MIX, including sexual behavior intentions, contraceptive knowledge, attitudes, and self-efficacy.

**Methods:** The study design was a cluster randomized controlled trial (RCT) involving 625 youth in 57 classrooms (8th-10th grade), recruited from three public charter schools serving primarily Latino students in Travis County, Texas. Re:MIX was implemented across five semesters, Fall 2016 - Fall 2018. Each semester, classrooms were randomized into the treatment or control condition within schools. Multivariate OLS regression models with clustered-robust standard errors were used to correct for the correlation among students within the same classroom.

**Results:** Three-quarters of participants were Latino, half were male, and the average age was 14 at baseline. As compared to students in the control classrooms, treatment students were more likely to report that they would definitely use hormonal or long-acting birth control if they had sex (61.3% versus 51.9%), and had more knowledge about condoms, STI prevention and birth control efficacy at immediate posttest (approximately three months after randomization). Treatment students were also more likely to report they knew where to get birth control (44.5% treatment versus 18.0% control) and had higher confidence in their ability to ask for and to give consent (27.0% treatment versus 19.4% control).

**Conclusions:** This study is one of the first rigorous evaluations of a comprehensive teen pregnancy prevention program incorporating young parent peer educators and targeting Latino youth. Short-term impacts on intentions, knowledge and self-efficacy measures are promising and could translate to behavioral changes in the longer-term follow-up.
32.

TRAINING FOSTER AND KINSHIP CAREGIVERS AS A STRATEGY TO REDUCE STI AND PREGNANCY RISKS IN FOSTER YOUTH: RESULTS FROM A RANDOMIZED CONTROLLED TRIAL

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Purpose: Due to high rates of exposure to early adversity, youth in foster care of both genders are at high risk of early, unintended pregnancies and sexually transmitted diseases. Interventions that improve the quality of a youth’s broader social context, including ones focusing on caregivers, can be an effective strategy for improving health outcomes for vulnerable populations. We sought to evaluate impacts of Heart to Heart, a 6 hour intervention designed to provide foster and kinship caregivers (FKC) with basic sexual health information and improve communication, monitoring, and emotion regulation skills as a strategy to improve sexual health outcomes for foster youth in a randomized controlled trial (RCT).

Methods: FKC participants were recruited from Los Angeles County and were randomly assigned to intervention (n=27) or control (n=44). Imbalance in group size was due to anticipated higher attrition rates in control group, which did not occur. Survey data were collected at baseline, 1, 3, and 6 months in both groups. We analyzed demographic characteristics at baseline, and distributions of outcomes variables at all timepoints. We the. calculated change from baseline for all outcomes except frequency of communication. Mixed-effects linear regression models were used to assess intervention effects on main outcomes at follow-up timepoints. A separate model was run for each outcome, with repeated measures by individual modeled as a random effect. Group (intervention vs. control), timepoint (modeled as a categorical fixed effect), and an interaction term between the two were included in the models, which were also adjusted for covariates imbalanced by group (participant age, education, study recruiter).

Results: The sample was 96% female, mean age of FKC was 53.8 years (SD=15.9), and most (66%) were African American. Half (54%) were caring for more than 1 teen. Over 95% of intervention participants completed the full intervention. In the intervention group, knowledge score was significantly higher than baseline by 23-27% at all follow-up timepoints (p<0.001 for all timepoints). We also observed a statistically significant increase in positive sexual health communication expectations in the intervention group at 3 months (0.30, p=0.041) and 6 months (0.36, p=0.037). Finally, the intervention group demonstrated a highly statistically significant reduction in conflict behaviors at 6 months compared to baseline (-1.76; p<0.01). Frequency of communication in past four weeks was higher in the intervention group compared to the control group at 1 month post-training (2.98 vs. 2.38, p=0.002), but differences were less pronounced and not statistically significant at later timepoints. The control group demonstrated no meaningful change in any of these outcomes compared to baseline. We found no statistically significant changes from baseline in perceived barriers to communication or monitoring behaviors for either group.
Conclusions: Heart to Heart demonstrates medium-to-long-term impacts on FKC for some behavioral and related outcomes. More research should be conducted in a larger, more geographically diverse sample to evaluate effects of this training not only on FKC but also on youth in their care.

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MEETING THE SEXUAL HEALTH NEEDS OF IMMIGRANT AND REFUGEE YOUTH
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Purpose: While substantial evidence exists to describe adolescent sexual health needs and effective programs to promote sexual health for adolescents, little research addresses the potentially unique needs of immigrant and refugee youth. In addition, few programs have been developed for or evaluated with samples of immigrant and refugee youth. The purpose of this study was to determine the potential impact of an evidence-based (EB), comprehensive sexual health education program on the sexual health attitudes, values, self-efficacy, intentions, behaviors, and awareness of sexual health resources of immigrant and refugee youth.

Methods: A sample of 122 immigrant and refugee youth (mean age 16 years; 55% male) who participated in an EB sexual health education program completed pre-, post-, and 3 month post-programming surveys. The EB program used Making Proud Choices! at its core and included additional components of adulthood preparation skills and peer education. Forty-five percent of participants self-identified as refugees and all participants self-identified as not living in the United States for their "whole life." Countries of birth for participants included Ethiopia, Rwanda, Afghanistan, Somalia and Iran. Repeated measures were used at pre and post-program participation to assess 1) Sexual health attitudes (6 items; α=.707), 2) Sexual health values (8 items; α=.716), 3) Sexual health self-efficacy (4 items; α=.609), 4) Sexual behavior intentions (2 items), 5) Sexual health behaviors (5 individual items), and 6) Awareness of sexual health resources (5 items; α=.705). Paired sample t-tests and Chi-square tests were used to compare outcomes at pre- and post-programming time periods.

Results: Pre-and post-programming mean scores related to sexual health attitudes, values, self-efficacy, and resource awareness increased significantly (p=<.000). Mean scores did not demonstrate significant change between post-programming and 3-month follow-up. However, mean scores at 3-month follow-up remained significantly higher compared to pre-programming. Sexual behavior intentions assessed using Chi-square tests demonstrated significantly fewer participants intending to have sex in the next month post-programming compared to pre-programming (χ²=29.73, p=.011). No significant differences between post-programming and 3-month follow-up were reported for intention to have sex in the next month. There were no significant differences in participant intentions to the item to use birth control if having sex in the next month. Rates of sexual behavior were low overall for this sample with only 31% of participants reporting ever having had sex a pre-test. There were no significant changes in behaviors across all time points.
Platform Research Presentation VI: Prevention/Sexual Health
Saturday, March 14, 2020 – 9:45 - 11:15 a.m.

**Conclusions:** These small-scale findings suggest that existing evidence-based sexual health programs may be well-positioned to meet the needs of immigrant and refugee youth. However, future research should focus on understanding how programs may need to be tailored to improve effectiveness for this population of youth.

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34.

**SHORT-TERM IMPACTS OF AN APP-BASED REPRODUCTIVE HEALTH PROGRAM FOR BLACK AND LATINX YOUNG ADULT WOMEN**

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*Child Trends*

**Purpose:** Black and Latinx young women aged 18-20 have high rates of unintended pregnancy and are less likely than school-aged youth to be served by pregnancy prevention programs, which are typically administered in schools. The Pulse app is an exclusively tech-based pregnancy prevention program designed to reach this specific group with reproductive health information and referrals. Child Trends rigorously evaluated Pulse’s impacts on knowledge, attitudes, intentions, and behaviors. This session presents a brief overview of the Pulse app and the Pulse Evaluation Study, the short-term impacts from the first cohort analytic sample of 1,124 women, and subgroup impacts for Latinx and Black participants (n=851).

**Methods:** This presentation focuses on intervention and control participants recruited via social media for a randomized controlled trial (RCT). Seventy-six percent of participants were Black or Latinx. Women were randomized to the Pulse reproductive health app or a general health app and received regular text messages with program content and reminders to view the app. An intention-to-treat approach was used for analyses and significance tests were adjusted to account for permuted block random assignment and multiple hypothesis testing. Linear probability models controlling for the baseline measure of each outcome, whether the participant reported ever having vaginal sex at baseline, age, and race/ethnicity measured program impacts for 1,124 participants six weeks after randomization. Linear probability models controlling for the same covariates except race/ethnicity were also used to assess subgroup impacts for Latinx (n=421) and Black participants (n=430).

**Results:** Participants who received the intervention were 7.6 percentage points less likely (p=0.001) to report having sex without a hormonal or long-acting contraceptive method than control participants. Intervention participants also scored 7.1 percentage points higher on contraceptive knowledge (p=0.000) and were 5.7 percentage points more likely to be confident that they can use birth control during every sexual intercourse (p=0.027). There were significant impacts for Latinx treatment participants on sex without a hormonal/LARC method in the past six weeks and knowledge. For Black participants, there were only significant impacts on knowledge.

**Conclusions:** The current study is one of the first randomized control trials to assess impacts of an app-based teen pregnancy prevention intervention with online recruitment and data collection. The study reached a large sample of participants that are less likely to be served by current teen pregnancy
prevention efforts: young adults, primarily race/ethnic minorities, that are at risk of unintended pregnancy. Our findings suggest that mobile-based approaches can be accessible, convenient, and scalable and offer a promising alternative to typical modes of sex education. Impacts at six weeks are promising, particularly for a self-led intervention with no direct contact with study staff. However, impacts may be stronger for Latinx participants compared to Black participants.

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LONG-ACTING REVERSIBLE CONTRACEPTION AND IMPLICATIONS FOR SEXUALLY TRANSMITTED INFECTION PREVENTION AMONG ADOLESCENTS AND YOUNG ADULTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Purpose: Long-acting reversible contraception (LARC) offers a highly effective option for preventing pregnancy but no STI protection. Unlike other contraceptive methods that provide no STI protection, LARC methods require minimal user effort following insertion; thus, implications for STI prevention may be distinct. To better understand these implications for adolescents and young adults (AYA), we synthesized studies comparing STI-related outcomes between LARC users (intrauterine devices and/or implants) and users of moderately effective contraceptive methods (oral contraceptives, injectables, patches, and/or rings).

Methods: We conducted a systematic review, searching public health and medical databases for articles published between January 1990 and July 2018. Eligible studies were English-language, peer-reviewed, and quantitatively compared at least one STI-related outcome between LARC and moderately effective method users. Outcomes included: condom use, sexual risk behaviors, STI testing, or STI infection. We used random effects meta-analysis to calculate pooled odds ratios for condom use and STI infection separately; findings for sexual risk behaviors and STI-services were each synthesized qualitatively.

Results: Findings were based on 38 eligible studies, including 10 with samples limited to AYA, ranging from 11-25 years. Pooling nine studies comparing condom use between LARC and oral contraceptive users, LARC users had nearly 60% lower odds of using condoms (OR=0.41, 95% CI=0.28-0.60). Based on seven studies, LARC users also had lower odds of condom use compared to injectable, patch or ring users (OR=0.57, 95% CI=0.45-0.72). In sensitivity analyses limited to studies with AYA only, these associations remained significant. Findings related to multiple sex partners from seven studies were mixed, with four showing an increased likelihood, three a reduced likelihood, and seven no association comparing LARC and moderately effective method users. Similar patterns were observed for the sub-set of studies focused on AYA. Evidence that LARC users were less likely to receive STI testing was limited, based on just two studies. Finally, pooled estimates from studies comparing chlamydia (CT) and/or gonorrhea (GC) infection between LARC and oral contraceptive users (n=7; OR=1.38, 95% CI=0.98-1.94)
and LARC and injectable, patch, or ring users (n=4; OR=0.69, 95% CI=0.29-1.65) were null. There were insufficient studies examining CT/GC among AYA to conduct sensitivity analyses for these estimates.

**Conclusions:** Although we observed no differences in CT/GC infection by contraceptive type, LARC methods may have unique implications for STI prevention given lower likelihood of condom use among LARC users compared to moderately effective method users, including among AYA. Studies comparing STI incidence by contraceptive type specifically among AYA are needed to fully understand the implications of the condom use findings given high burden of STIs in that population. Given the dynamic nature of adolescent sexual partnerships and mixed evidence suggesting LARC users have fewer partners, promoting condom use for STI prevention with more effective contraception remains critical.

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