EATING DISORDERS IN ADOLESCENTS: HOW DOES THE DSM-5 CHANGE THE DIAGNOSIS?

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Purpose: Two independent studies of rural African American youths were used to test the moderation effect a novel haplotype in the corticotropin-releasing hormone receptor 1 gene (CRHR1) on the link between life stress and the change of depression over 4 years.

Methods: 16-year-old (N = 502) and 18-year-old (N = 347) African American youths were randomly selected from rural Georgia as a part of two 4-year longitudinal studies (SAAFT and AIM). Negative life event and depression symptoms were collected over 4 years. Genetic data were also collected along with the survey data. Haplotype analysis were performed on 10 SNPs of the CRHR1 gene and a GC haplotype was identified as a protective factor of youth depression. A latent growth model was performed to test whether the GC haplotype moderates the link between wave 1 negative life event and change (slope) of youth depression across 4 years. We replicated the analysis with the two independent data sets. All the analyses were performed in MPLUS 6.0.

Results: A CRHR1 haplotype X negative life event (GXE) interaction significantly predicted the slope of youth depression in the latent growth model (b = -.03, p < .05 for SAAFT and b = -.05, p < .05 for AIM). With exposure to high level negative life event at wave 1 (1 SD above mean), youths who do not carry a CG copy in the CRHR1 haplotype showed stable and high depression across time while those who carry a least one CG copy showed a decreasing trend in depression. Youths who carry a CG haplotype were protected from the influence of stressful life events. Similar results were found both in SAAFT and AIM.

Conclusions: The replication design strengthens the findings of the current study. Results suggest that a diathesis-stress hypothesis was supported as oppose to a susceptibility hypothesis when concerning a GXE interaction.

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SESSION IV: SEXUAL HEALTH & VACCINES

DEVELOPING A SEXUAL AND REPRODUCTIVE HEALTHCARE GUIDE: THE VOICES OF YOUNG URBAN MINORITY MALES AGED 15-24

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Purpose: Clinician guides to successfully engage young males aged 15-24 in sexual and reproductive healthcare are lacking. This study’s goal was to explore factors influencing young males’ use of sexual and reproductive healthcare to inform such a guide.

Methods: 49 males were recruited to participate in focus groups from communities with high sexually transmitted disease (STD) rates in a northeastern city. Groups were stratified by age (4 among 15-19 yrs; 5 among 20-24 yrs), race/ethnicity (7 African American; 2 Latino) and sexual behavior (7 heterosexual; 2 non-heterosexual). Trained male moderators were matched to participants’ race/ethnicity and groups were conducted in English and Spanish, depending on need. Participants were queried on factors influencing young males’ use of sexual/reproductive healthcare using a brief self-administered survey and via a focus group moderator guide. Groups lasted 60 minutes, and were audio-taped and transcribed. Two researchers coded transcripts, categorized codes and conducted content analyses. A third researcher corroborated findings. Brief survey descriptive statistics were conducted. This study was IRB approved.

Results: 90% of participants reported sexual behavior. In the last year, 25% reported no regular doctor or insurance, 40% no STD/HIV test, and 30% no STD/HIV counseling by a doctor. Content analyses identified 5 domains influencing young males’ use of sexual/reproductive healthcare: accessibility, clinic visibility, communication, patient-centered care and interpersonal factors. Identified themes within each domain serving as barriers and/or facilitators of care included: 1) accessibility - (a) availability of affordable/free
services, (b) transportation, and (c) availability of walk-in services; 2) clinic visibility - (a) help to locate and receive services including clinic marketing via traditional (e.g., TV) or new technology (e.g., phone apps); 3) confidentiality - (a) fear providers do not maintain confidentiality and (b) applauding doctors who assure confidentiality; 4) patient-centered care - (a) preference for female providers and (b) wanting to choose one’s own clinician; and 5) interpersonal factors - (a) fears of positive STD test results and (b) stigma associated with being tested for STDs. Themes did not vary by participants’ sexual behavior. Language barriers at clinics were discussed among Latino groups (e.g., needing translators and materials in Spanish).

In exploring source of sexual/reproductive healthcare, the majority of participants reported mothers (84%) and doctors (81%) as most helpful sources. Although 44% of participants reported the Internet as an information source, participants discussed having mixed feelings trusting this source and concerns about search history privacy. Few participants reported having searched for a clinic to go to for a personal concern on a home computer (43%) or mobile device (23%) despite access to such devices.

Conclusions: Participants discussed specific factors influenced their sexual and reproductive healthcare use that can be easily incorporated into a clinic guide to assist in linking them to care (e.g., clinic access information, confidentiality assurances, patient-centered care). Future work should evaluate whether a tailored guide for young males results in their increased care use and explore ways to address the continued fear and stigma of a HIV/STD diagnosis.

Sources of Support: CDC 1H25PS003796 and the Secretary’s Minority AIDS Initiative.

19.

RESULTS FROM EKISS (ELECTRONIC KIOSK INTERVENTION FOR SAFER-SEX): A PILOT RANDOMIZED CONTROLLED TRIAL TO TEST AN INTERACTIVE COMPUTER-BASED INTERVENTION FOR SEXUAL HEALTH IN ADOLESCENTS AND YOUNG ADULTS

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Purpose: Sexually transmitted infections (STIs) and unintended pregnancy rates are disproportionately high in adolescent and young adult populations. We need effective, scalable strategies to promote sexual health and prevent STIs and unintended pregnancies that reach young people in real-world settings. Interactive computer-based interventions (ICBI) are promising tools to meet these goals. The purpose of this study was to test the feasibility and acceptability of an interactive computer-based intervention for sexual health; assess the effectiveness of the intervention in reducing unprotected sex; and pilot test biomarker outcomes of STIs and unintended pregnancy.

Methods: The study is a pilot randomized controlled trial of males and females (14-24 years) seeking care in a public health STD Clinic and reporting at least one episode of unprotected vaginal sex in the last 2 months. Randomization was computer generated and stratified by gender, age group, and visit type. Investigators and participants were blinded to allocation to Intervention or Control Group. Participants entered their sexual history via Computer Assisted Self-Interview and provided urine samples for Chlamydia, gonorrhea and pregnancy (females) testing. The Intervention group completed an interactive-computer program and received personal feedback from a Physician Avatar about their protective and risky sexual behaviors; were offered video modules targeting sexual health knowledge and skills; and identified a goal behavior to change. At 3-month follow-up participants reported their interim sexual history, underwent follow-up urine testing. The primary outcome was unprotected vaginal sex (without condoms) in the last 2 months. Secondary outcomes included unprotected vaginal sex (without other contraception), number of sexual partners, incident STIs and unintended pregnancy. Poisson and logistic regression were used to assess for differences in treatment arms.

Results: Two hundred and forty-two of 272 participants completed the study yielding a follow-up rate of 89%. Average age was 21 years; with 65% female; 37% White; 34% Black; 10% Asian; 7% Hispanic; and 2% Native American. At the baseline visit 75% (99/130) reported the computer intervention was Very or Extremely Helpful. Statistical models were adjusted for baseline differences of self-reported history of STI and ever transactional sex. At 3-month follow-up the Intervention group reported 33% lower rate of unprotected vaginal sex (without condoms) [IRR = 0.67, 95% CI: 0.44-1.01]; 20% fewer partners [IRR = 0.80, 95% CI: 0.61-1.05]; and 48% fewer STI infections [IRR = 0.52, 95% CI: 0.24-1.13]. Intervention females reported lower rate of unprotected vaginal sex (without other contraception) [IRR = 0.78, 95% CI: 0.46-1.32] and half as many unintended pregnancies (n = 5) versus Control females (n = 10) [IRR = 0.51, 95% CI: 0.16-1.6]. In a subgroup analysis, Intervention females showed a significant reduction in unprotected vaginal sex (without condoms).

Conclusions: The interactive computer-based intervention for sexual health was feasible to execute and was acceptable to the study population. There was a trend in the effectiveness of the intervention in reducing unprotected vaginal sex, number of partners, incident STI and unintended pregnancy at 3-month follow-up although results did not reach statistical significance. The intervention may be more effective in females than males.

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20.

URINARY CADMIUM AND THE TIMING OF MENARCHE AND PUBERTAL DEVELOPMENT IN GIRLS

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Purpose: Cadmium (Cd) is a developmental toxicant and carcinogenic metal. It is released into the environment during industrial processes and mining operations and bioaccumulates in plants grown in contaminated soil, especially tobacco and leafy green vegetables. In the US and Europe, the onset of menarche and puberty in girls has been decreasing for several decades. Exposures to endocrine-disrupting chemicals and metals such as Cd in the environment may impact the onset of puberty.

Few studies have examined whether Cd exposure affects the onset of estrus in animals or puberty in humans. Findings from published animal studies on the effects of in utero Cd exposure suggest that low-dose Cd exposure accelerates the onset of estrus by mimicking estrogen effects while exposure at higher doses delayed the onset of estrus due to ovotoxicity. In the only human study to date, urinary Cd concentrations in prepubertal girls was