

#### 004.2 A PILOT RANDOMISED CONTROLLED TRIAL OF AN INTERACTIVE COMPUTER-BASED INTERVENTION FOR SEXUAL HEALTH IN ADOLESCENTS AND YOUNG ADULTS

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**Introduction** Interactive computer-based interventions (ICBI) are potentially scalable tools for use in real-world settings to promote sexual health and prevent sexually transmitted infections (STIs) and unintended pregnancies. We assessed the feasibility and acceptability of an ICBI for sexual health and the effectiveness of the intervention in reducing unprotected sex and biomarker outcomes of STIs and unintended pregnancy.

**Methods** This pilot randomised controlled trial enrolled STD Clinic patients, 14–24 years old, reporting unprotected vaginal sex during the last 2 months. The ICBI included personalised sexual health feedback from a physician avatar; instructive video modules advocating sexual health; and identification of one behaviour to change. At 3-month follow-up participants reported on interim sexual and pregnancy histories and underwent repeat urine testing. Intervention impact on unprotected vaginal sex, number of sexual partners, incident STIs and unintended pregnancy was assessed.

**Results** Of 272 participants, 242 (89%) completed the study, of which 65% were female. At 3-month follow-up, when compared to controls, the intervention group reported a 33% lower rate of 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]; 48% fewer STIs [IRR = 0.52, 95% CI: 0.24–1.13]. Intervention females reported less frequent vaginal sex without birth control [IRR = 0.78, 95% CI: 0.46–1.32]; half as many unintended pregnancies [IRR = 0.51, 95% CI: 0.16–1.6]. In exploratory analyses, intervention females reported fewer partners [IRR = 0.71, 95% CI: 0.50–1.00] and a significantly lower rate of vaginal sex without condoms [IRR = 0.50, 95% CI: 0.30–0.85].

**Conclusion** The intervention was acceptable to both males and females, and at 3-month follow-up, there was a non-significant but substantial trend towards effectiveness for all outcomes. Among females, in exploratory analysis, the reduction in vaginal sex without condoms was statistically significant.

**Disclosure of interest statement** Test kits for STI testing were provided by GenProbe.

#### 004.3 ADOLESCENT CARE-SEEKING BEHAVIOUR AFTER NOTIFICATION OF POSITIVE SEXUALLY TRANSMITTED INFECTION RESULTS

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**Background** Adolescents with pelvic inflammatory disease [PID] are at risk for recurrent sexually transmitted infections [STI]. There is limited understanding of adolescent responses to notification of subsequent STI. The objective of this study was to examine care-seeking trends after notification.

**Methods** This study utilised data from 59 of 153 adolescents with PID enrolled in the Technology Enhanced Community

Health Nursing [TECH-N] study with positive STI results at 1-month or 3-month study visits. Participants provided vaginal specimens for *Neisseria gonorrhoeae* [GC], *Chlamydia trachomatis* [CT], *Trichomonas vaginalis* [TV], and *Mycoplasma genitalium* [MG]. Participants were called with results and an outreach worker contacted hard-to-reach participants in the field. Participants were referred for free treatment in a youth-friendly clinic. TECH-N staff tracked treatment using the electronic health record and communication with the health department. Statistical analyses were performed to evaluate responsiveness to notification.

**Results** Mean age of participants with positive results was 18.1 (2.1) and 44% had a prior STI. At 1-month, positives were 26% CT; 5% GC; 37% TV; 53% MG. At 3 months, positives were 16% CT; 11% GC; 49% TV; 51% MG. All adolescents with positive results were contacted and 50% sought treatment. 60% of CT 0% of GC, 55% of MG, and 57% of TV positives did not seek treatment. 42% who were positive at 1 month remained positive at 3-months. Using GC/CT treatment as a reference, documented treatment rates for positive results were CT/GC (50%) versus MG (54%) at 1 month and TV (60%) and at 3-months were CT/GC (80%) versus MG (55%) and TV (17%). Despite the 3-month trend, differences did not reach statistical significance.

**Conclusion** Most adolescents who tested positive for STIs after PID were responsive to notification. However, many youth did not seek treatment despite the availability of free, confidential, and youth-friendly sexual health services.

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#### 004.4 PILL DUMPING IN ADOLESCENTS RECEIVING A BOOSTED PROTEASE INHIBITOR REGIMEN AS PART OF SECOND-LINE ANTIRETROVIRAL THERAPY: EXPERIENCES FROM AN URBAN HIV CLINIC

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**Introduction** In adolescents several psychosocial factors contribute to non-adherence. This study was undertaken to ascertain overall adherence of HIV infected adolescents to either boosted atazanavir (ATV/rvt) or lopinavir (LPV/rvt). The study was also conducted to compare self-report/pill counting adherence measurement techniques against the MEMS cap device technique.

**Methods** This was a prospective cohort study in adolescents (aged 12 to 23) receiving either boosted atazanavir (ATV/rvt) or lopinavir (LPV/rvt) as part of an antiretroviral regimen. This study was conducted at Newlands Clinic, Harare, Zimbabwe. Participants received a MEMS cap to assess adherence to the protease inhibitor (PI). During subsequent clinic visits, MEMS caps would have data downloaded before medicine was refilled. Participants were blinded to the results of the MEMS cap result. At each subsequent visit, a pill count and a self-report was also conducted to measure adherence. Viral load measurements were also recorded against the adherence data.