

## THPEE504

## "TOUGH TALKS": DEVELOPING A VIRTUAL REALITY APPLICATION TO SUPPORT HIV STATUS DISCLOSURE AMONG YOUNG MSM

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**Background:** After diagnosis, persons living with HIV, including young men who have sex with men (YMSM) continue to engage in sexual risk behaviors. HIV-status disclosure can decrease risk, however currently there are no scalable interventions for youth. Virtual reality (VR) technologies can be leveraged as innovative approaches to communication skill building and sexual risk reduction.

**Description:** Tough Talks is a VR application designed for HIV+ YMSM to practice disclosing their status to intimate partners in a safe, confidential environment. Created in collaboration between two research universities and a software company, Tough Talks is delivered via a laptop and tablet. YMSM first select a disclosure setting and realistic avatar to disclose their status to. Avatars and scenes were designed by and with MSM to ensure appropriateness and resonance. Avatars respond from a database of over 100 phrases, developed and refined through 4 focus groups with HIV+ and HIV- YMSM and 45 usability sessions with 15 HIV+ YMSM. Users currently disclose via chat; future iterations will include ability to speak to the avatar. At this development stage, an automatic algorithm suggests responses to user utterances, which are then verified or changed by a human operator in real time. Presently, the algorithm provides 40-60% appropriate responses; performance improves with increased usability data.

**Lessons learned:** VR is a powerful, scalable technological tool for addressing complex behaviors like HIV status disclosure. To optimize uptake and utilization, the program must be visually and linguistically tailored for end-users. Scenarios and realistic avatars allowed participants to feel immersed and invested, resulting in strong emotional responses. Participants wanted options to type or speak to the avatar; noting that typing felt like a first-step toward speaking their status out loud.

**Conclusions/Next steps:** VR can be used to simulate in-person conversations in an immersive, nonjudgmental environment. Tough Talks presents a novel opportunity to practice disclosure strategies prior to engaging in these difficult and stressful situations. As the application is refined, ultimately the human operator will not be needed, facilitating broad scale-up. Future iterations will feature expanded disclosure scenarios and avatar selections including partners, friends, and family members.

## THPEE505

## COMMUNITY-BASED PHARMACISTS' CONFIDENCE LEVEL IN COMMUNICATING WITH PHYSICIANS ABOUT HIV-POSITIVE PATIENTS ANTIRETROVIRAL THERAPY TREATMENT

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**Background:** Effective HIV patient care is largely dependent on communications between healthcare professionals across the HIV continuum of care. Pharmacists as medical experts are a valuable resource to physicians treating persons living with HIV (PLWH) with multiple chronic conditions. We are not aware of any studies examining pharmacists' confidence communicating with physicians treating PLWH. Our study examines how community-based pharmacists' confidence communicating with physicians impacts their ability to provide adherence promotion activities (APA) to PLWH.

**Methods:** We surveyed community-based pharmacists providing HIV patient care. We asked pharmacists to rate 27 APA activities (assessment, monitoring) and 4 questions about their confidence-level communicating with physicians (knew appropriate questions, discussing therapy challenges) on 3-point Likert Scale. We used factor analysis to generate an APA index ( $\alpha=0.92$ ) and phy-pharmcomindex ( $\alpha = 0.90$ ). Univariate generalized linear modelling (GLM) and multivariate GLM were done to identify significant pharmacist (e.g., age, education) and pharmacy (e.g., type, size) factors associated with APA.

**Results:** 40% of the 188 pharmacists from 37 U.S. states surveyed worked in top HIV MSAs. Most were female (63%), Caucasian (67%) and HIV certified (73%). 33% worked in specialty-only pharmacies. A majority (85%) worked closely with physicians. 8% were not very confident about appropriate questions and 13% discussing ART regimen challenges. In univariate GLM, HIV+ clientele, prescription

volume, public insurance, HIV certification, HIV organization membership, and phy-pharmcomindex had higher odds of APA; age and fulltime status had lower odds. In multivariate GLM, HIV certification, HIV organization membership and phy-pharmcomindex had higher odds [OR<sub>certification</sub>: 1.432 ( $p < .05$ ); OR<sub>membership</sub>: 1.596 ( $p < .05$ ); OR<sub>phy-pharmcomindex</sub>: 1.552 ( $p < .01$ )], while fulltime status had lower odds [OR<sub>fulltime</sub>: 0.700 ( $p < .05$ )] of APA.

**Conclusions:** Many pharmacists are confident asking the right questions and discussing ART therapy with physicians. Pharmacists who are confident communicating with physicians are 50% more likely to provide APA, after controlling for HIV certification and membership. As the last providers patients see before medications, pharmacists knowledgeable of appropriate questions and confident communicating therapy-related concerns with physicians can ensure PLWH are adherent to ART and avoid medication-related adverse effects. Our findings have significant implications for community-based pharmacists' continuing efforts to promote adherence among PLWH.

## THPEE506

## CREATING AN ONLINE HIV PREVENTION AND TREATMENT CASCADE USING THE ADAM'S LOVE ELECTRONIC HEALTH RECORD SYSTEM

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**Background:** Electronic health record (EHR) systems reduce the fragmentation of care, providing clients instant access to healthcare data and encouraging participation in their own health. Costs, fear of and actual data breaches, and securing client confidentiality remain key challenges. We developed Asia's first EHR for men who have sex with men (MSM) and transgender (TG) people.

**Description:** myhealth.adamslove.org, a web-browser based EHR system launched by The Thai Red Cross AIDS Research Centre (TRCARC) in December 2015 as part of the Online Test and Treat Study, an implementation science research project to facilitate an online HIV prevention and treatment cascade. The EHR includes consent and registration processes, risk-assessments, appointment scheduling, visit reminders, live video guidance for HIV testing, access to post-test counseling summaries, HIV and STI test results, treatment referrals for HIV and STIs, treatment monitoring information including CD4 counts, viral loads and antiretroviral treatment. To ensure data security, the system is built on an IBM web server application and includes one-time password (OTP) system for two-factor authentication.

**Lessons learned:** Within one month of launch, 22 MSM and one TG were recruited online for HIV testing using the EHR. 65.4% were < 25 years, 46.2% were first time testers, 63.4% hid their sexual identity to family, friends or coworkers, 62.5% had used drugs in the past six months and 53.8% sometimes or never used condoms. All were HIV negative. All reported being very satisfied with their overall EHR experience, including the online consent and registration process, security and privacy aspects and appointment scheduling feature. Almost half (42.3%) revisited the EHR to check their post-test counseling summaries and lab results. However, there were initial technical difficulties with the OTP system due password delivery interruptions. These were addressed by troubleshooting directly with local mobile network operators and whitelisting internet protocol (IP) numbers. Other technical issues included inconsistent microphone or webcam function, and disruptions in live video chat due to slow internet connections.

**Conclusions/Next steps:** EHR is an innovative intervention to engage young MSM and TG youth in online test and treat strategies. Longer-term data is being collected to demonstrate evidence across the use of EHR to improve health outcomes.

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