



HHS Public Access

Author manuscript

MMHealth16 (2016). Author manuscript; available in PMC 2019 February 08.

Published in final edited form as:

MMHealth16 (2016). 2016 October ; 2016: 41–43. doi:10.1145/2985766.2985773.

Perspectives on Tablet-based Multimedia Interventions for Behavioral Health: Populations, Venues, and Delivery Modalities

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Abstract

The current paper reports on a study examining the use of a tablet-based multimedia intervention to increase HIV test rates among patients in a New York City hospital Emergency Department (ED) serving the Harlem area. The findings from this qualitative analysis of 40 ED patient interviews indicates how tablet-based multimedia can be expanded and adapted to serve a wide-range of at-risk populations and address salient public health concerns including the reduction of blood-borne disease transmission, drug overdose reduction, and increasing the health, empowerment and well-being of historically stigmatized and marginalized populations in global contexts.

Keywords

Video; Qualitative; HIV; Education; Multimedia; Emergency Department

1. INTRODUCTION

Harlem, NYC and other low socio-economic status (SES) neighborhoods face multiple public health challenges including exceptionally high HIV risk, [1] and problematically low HIV test rates. [2] Moreover, rates of HCV infection and opioid-related drug morbidity and mortality are growing problems. [3–5]

2. METHODS

We present qualitative findings from 40 ED patients whose narrative accounts can help efforts to better understand how multimedia interventions can be adapted for different

populations in a range of settings and be tailored to address pressing public health concerns including HIV and HCV, as well as overdose (OD) prevention, treatment, and response. All participants received treatment in a high volume Harlem area ED, and were interviewed after completing a brief (<15 minute) tablet-based multimedia intervention designed to increase HIV test rates. The intervention integrated automated data collection instruments (including an HIV risk screening) with short videos designed to address established barriers to testing. At the end of the intervention, the tablets asked each participant if they would like an HIV test.

We report on three salient domains including: 1) participant impressions of tablet-based multimedia video interventions; 2) participant suggestions for improvement of multimedia interventions and 3) participants' perspectives of additional venues and delivery modes for multimedia interventions. Participants' narrative accounts can assist in increasing efficacy of public health programmatic development and service delivery aimed at HIV/HCV/OD prevention, awareness and response among diverse, hard-to-reach populations that remain underserved by current efforts. Descriptions of our methodology and findings can potentially inform other interventions aimed at high-need populations around the world.

3. FINDINGS

3.1 Overall Impressions of Video Intervention

Patients' accounts suggest that there remains a lack of knowledge concerning HIV, testing and managing HIV disease. Patients spoke to the issue of time constraints, and of "outing" oneself to other community members while at the same time realizing testing and "treatment" can be done in a confidential setting sans fear of the stigmatization directed towards "others" that remains pervasive in the USA. There are stereotypes that remain: that only gay communities or drug-using communities are vulnerable to HIV. This ideological carry-over rooted in racist and sexist myths continues to impact many community members' willingness to discuss health and wellness with others in their community, especially involving sex or drugs. Mobile-based technologies may help alleviate some of these fears in confidential, low-threshold settings. As one patient suggested, time is important –one has to take care of ones' daily life:

[A friend with HIV] "He wants them to be aware that it only takes 20 minutes to get tested and to know whether you're HIV positive. Before it used to take three months to know whether you're positive or not. But now you know faster... I understood where he came from and how HIV could be just passed on in one second without even realizing it." White, Hispanic female, age 25.

Other patients reinforced this notion that lacking knowledge of time required to take a test or receive results could be economically, socially and psychologically cumbersome. Another patient offered insight into how to ease the process, endorsing the potential benefits of technology that can provide privacy and foster comfort and non-judgmental approaches:

"I think on a screen is more helpful because a lot of people like technology especially ... And as far as doctor's go, I mean – me, I'm totally comfortable speaking to my doctor about things. But for someone who might have reservation

about certain things that they want to say to somebody, I think it's easier for you to just type it down in a tablet and like someone read it sometimes." Black, non-Hispanic female, age 21.

Another patient was less comfortable with doctors and the "power dynamics" that the visit seemed to entail:

"Again, it's because the whole like direct engagement sort of power dynamic thing and people are already –. You know, at the end of the day, people know that doctors are still humans ... They know some judgment might be happening you know even if there isn't. It's still a one on one interaction and I don't know. I think it might be nice to answer those questions before hand, have the doctor receive them. Come in already knowing that information as opposed to grilling them [the patient] on the spot..." Asian, non-Hispanic female, age 24.

3.2 Suggestions for Improving Intervention

Patients suggested several ways that the multimedia intervention could be improved or tailored for different populations. Many indicated the need to target younger populations who may be unaware of the risks for HIV or mistakenly believe HIV is a disease that only affects males. Patients also suggested that messaging could be tailored to a broad cross-section of populations – indicating, as one participant suggested,

"I mean, it shows that HIV don't discriminate. A lot of people think it's a Black, Spanish – no. It ain't no Black, Spanish, or white. Disease don't discriminate. Anybody is at risk of it. If you expose yourself, you're bound to get, you know. It's just like they said how fast you can get treatments because a lot of people like – I know people for a fact and I've seen cases while I was incarcerated, I was – how do you say it? I happened to meet people in the penal system that ... [were] positive for HIV and still have sex with somebody else without letting them know ... that is crime. So it's just like they said ... when you find out that you're positive to HIV, it's what do you do about it, you know? Which is get counseling and get the proper treatment because sometime if you can detect it on time which is not too advanced, you might be able to – with the help of doctors and everything to get, not a cure, but to attack the disease to a point that it don't hurt you that bad. Black, Hispanic male, age 49.

"I only saw males on the video but it's like if you really come to understand like the same for having sex you do get it which is, like, you would – you could be with a gay person or you could be with your partner which is a female. Like me, I don't do males. I only do females and I only have one woman, my wife but HIV don't discriminate. It's males or females. So, like I said, you shouldn't be looking at the race or the gender. Just look at the message that you're getting which is the HIV, a disease. Black, Hispanic male, age 49.

"No. I mean, I don't think they should like make it seem like only gay guys that get HIV, I would do a boy and a girl because anybody can get it. And it was me I would probably focus on like younger kids ... they don't understand that you need to be

safe and but then again I wouldn't know but I have seen a lot of girls just sleep around and catch things and stuff... White, Hispanic female, age 25.

3.3 Venues and Delivery Modes for Tablet-based Mobile Intervention

Patients were interviewed in the ED but had many innovative suggestions for broader dissemination via commercials, bill-boards and other forms of community outreach:

"I mean personally I get a test all the time but I guess they could put young kids on billboards like teenagers I guess, because like sometimes they make it seem like only older people get it so maybe like if you put people our age, people understand that there is a risk." White, Hispanic female, age 25.

"Well, like, you see, I'm naïve to computer. So that's why I say I'd rather – that's one of the reasons why I also say I'd rather watch it on like a commercial or something. ... I'm stupid. I just don't have the patience for it. I never try to learn it. My daughter try to teach me, I'm like no. That's not me. We just work construction. So that's why – one of the reasons why I said I'd rather see it on a commercial because even though on commercial, it bring more attention. It's something that I must see right away and computer I don't know how to use it so." Black, Hispanic male, age 49.

"I think just try to experiment more, you know, not just, you know, in the hospital but more places probably... You know, anywhere the community maybe, you know, not just a big hospital like this but there's other smaller clinics, you know, that could use this technology, too." Black, non-Hispanic female, age 22.

"I see there is a lot of value in video because it can be disseminated like mass distributed, very quickly especially to populations that may not have resources like HIV counselors ... I think that having that engaged conversation directly with a human is so much more effective because immediately as the video started, my mind, I just zoned out completely, to be honest." Asian, non-Hispanic female, age 24.

4. CONCLUSIONS

Participants' narrative accounts of their experiences with mobile-based public health interventions provide many lessons. These participants suggest that technologies can be useful to increase the efficacy of public health programmatic development and service delivery aimed at HIV/HCV/OD prevention, awareness and response, and can be adapted for diverse populations in many settings. Participants' narratives underscore the feasibility, acceptability, and effectiveness of tablet-based multimedia interventions and offer ways in which they can increase knowledge, awareness and testing for HIV and help reduce the impact of other critical public health problems. Moreover, they suggest these technologies hold potential to improve the public health of many disadvantaged communities in global contexts, especially highlighting the value of low-threshold service delivery targeting hard-to-reach populations. Finally, these patients speak to the ways in which mobile-based technologies can augment HIV education and testing and speak to the potential for reducing

harms associated with blood-borne disease transmission and infection as well as reducing drug-related harms more generally.

5. ACKNOWLEDGEMENTS

NIH/NIDA Grant 5R34DA037129

NIH/NIDA Grant P30DA011041

NIH/NIDA Grant P30DA029926

6. REFERENCES

- [1]. New York City Department of Health and Mental Hygiene. 2010 Substance Use and Sexual Risk among Men who Have Sex with Men, Injection Drug Users and High-risk Heterosexuals: Results from the National HIV Behavioral Surveillance Study in New York City, 2010 (June 2010), 1–35.
- [2]. Centers for Disease Control and Prevention. 2012 Vital Signs: HIV Infection, Testing, and Risk Behaviors Among Youths – United States. *Morbidity and Mortality Weekly Report*, 61, 47, 971–976. [PubMed: 23190571]
- [3]. Campopiano M 2014 SAMHSA Priorities: HIV/HCV/Overdose National Alliance of State and Territorial AIDS Directors Washington, DC.
- [4]. Raymond D 2014 Defining the Problem and Prioritizing a Response: HIV, HCV, Drug Use and Overdose in the U.S National Alliance of State and Territorial AIDS Directors Washington, DC.
- [5]. Centers for Disease, Control and Prevention. 2012 Integrated Prevention Services for HIV Infection, Viral Hepatitis, Sexually Transmitted Diseases, and Tuberculosis for Persons who Use Drugs Illicitly: Summary Guidance from CDC and the U.S. Department of Health and Human Services. *Morbidity and Mortality Weekly Report*, 61, RR-5, 1–40.