



Gay and Bisexual Men’s Recommendations for Effective Digital Social Marketing Campaigns to Enhance HIV Prevention and Care Continuity

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Abstract

Because use of geosocial-networking smartphone applications (‘apps’) is ubiquitous among men who have sex with men (MSM), online-to-offline service models that include advertisements on these apps may improve engagement with effective HIV prevention and treatment services. Through our formative qualitative study, we conducted individual in-depth interviews ($n = 30$) and focus group discussions ($n = 18$) with MSM in Rhode Island to develop a digital social marketing campaign aimed at increasing HIV testing, including how best to reach men by advertising on apps. Qualitative data analysis revealed that participants were frequently exposed to pop-up advertisements on apps. These advertisements are viewed as invasive and, as such, many expressed a preference for other formats (e.g., direct messages, banner advertisements). Men expressed a preference for provocative images and phrases to catch their attention followed with fact-driven messaging to motivate them to engage with services offline. Findings from this study offer several practical recommendations for developing a social marketing campaign that uses advertisements on apps to increase HIV testing among MSM, including using formats other than pop-up advertisements and pairing fact-driven messaging with eye-catching images to direct them to trusted local clinical services.

Keywords HIV testing · Men who have sex with men · Qualitative research · Smartphone applications · Social marketing

Introduction

Gay, bisexual, and other men who have sex with men (MSM) in the United States (US) bear a disproportionate burden of the HIV epidemic. Although only 3.9% of all adult men in the US are estimated to be MSM [1], 79.7% of all men living with diagnosed HIV infection as of 2017 and 86.1% of all men newly diagnosed with HIV infection in 2018 were

reported to be MSM [2]. Although significant progress has been made in reducing the overall incidence of HIV infection in the US since 2008, including a decrease of 6.5% per year among heterosexual men, incidence remains stable among MSM [3]. The lifetime risk of HIV infection among MSM is 16.7% relative to 0.2% among other men [4].

Novel approaches for implementing existing HIV prevention and treatment interventions to scale represent a key priority in accelerating progress towards the end of the HIV epidemic [5]. The “status neutral” prevention and treatment cycle represents an emerging paradigm to understand how to deploy these interventions in combination with one another [6]. This framework acknowledges that testing for HIV infection is the fundamental point of entry into engagement in both prevention and treatment services [6]. As such, efforts to improve progress along the continuum of care for treatment or prevention will be ineffective without regular screening. Current recommendations from US Preventive Services Task Force state that all MSM be screened for HIV infection at least once per year [7], but only 76.6% of MSM participating in the National HIV Behavioral Surveillance

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System in 2017 underwent an HIV test in the past 12 months [8]. Novel approaches for increasing HIV screening among MSM are needed to leverage the population level benefits of antiretroviral treatment (ART) and pre-exposure prophylaxis (PrEP), particularly to reach individuals not otherwise reached by traditional venue-based outreach [9].

Given the widespread use of geosocial-networking smartphone applications (“apps”) among MSM to meet sexual partners [10, 11], these digital venues represent promising platforms for the delivery of HIV prevention and treatment messages. Studies assessing the risk of HIV infection among MSM using these apps have reached divergent conclusions, with some studies suggesting that MSM who use apps are no more likely to engage in behaviors that increase their risk for HIV infection than their peers who do not use these apps [11–14]. Nonetheless, app use is ubiquitous in the lives of MSM, including those newly diagnosed with HIV infection [15]. These apps may serve as platforms for reaching those not otherwise served by traditional community-based outreach [16], including those who have never been tested [14, 17], and motivating engagement in services offline as part of online-to-offline (O2O) service models [18, 19].

Social marketing uses marketing designs and implementation concepts to promote societal change [20]. These campaigns have been widely employed to affect changes in HIV testing behaviors [21], but none have leveraged these apps to send health promotion messages directly to their users. Although social marketing for health promotion on existing apps commonly used by MSM is acceptable to their users [22–24], few apps present messages promoting HIV testing or HIV prevention strategies [25]. A recent systematic review found that social marketing campaigns can increase HIV testing among MSM, but implementation research is needed to identify the elements of these campaigns that are most effective in reaching the target audience and changing behaviors [21]. We conducted formative qualitative research to understand current experiences with marketing on apps commonly used by MSM and solicit feedback on the ideal format and content for a social marketing campaign aimed at improving HIV testing.

Methods

Study Setting

Rhode Island has a total population 1.1 million people, with an estimated HIV prevalence of 0.2% [26]. The proportion of adults in Rhode Island who have ever tested for HIV infection increased from 34.8 in 2013 to 41.8% in 2018. As a result, the proportion of all people living with HIV infection who are aware of their status has steadily increased from 80.1 to 87.8% in this period [26]. Owing to large increases in

viral load suppression among people living with diagnosed HIV infection, the total number of newly diagnosed HIV infections each year has steadily decreased since 2008, with 76 newly diagnosed HIV infections reported in 2018 [26]. Given these decreases, Rhode Island represents one jurisdiction in the US that has opportunity to reach the ambitious targets of ‘Getting to Zero’ [27] through increased testing and linkage to HIV prevention and treatment. Rhode Island has one of the highest rates of insurance coverage, with only 4% of Rhode Islanders reporting no health insurance coverage in 2018 [28].

Although MSM are believed to represent 6.0% of adult men in the state [1], 75.1% of all newly diagnosed HIV infections among men between 2008 and 2016 were attributable to male-to-male sexual contact and 63.3% of all men living with diagnosed HIV infection as of 2016 are MSM [26]. HIV prevalence among MSM in Rhode Island was estimated to be 5.8% in 2014, with marked racial/ethnic disparities (5.2% among White MSM, 10.2% among Black/African American MSM, and 7.3% among Hispanic/Latino MSM) [29]. The use of apps to meet sexual partners is common. Among 43 MSM newly diagnosed with HIV infection in 2013, 60.5% met sexual partners online in the 12 months preceding their diagnosis [15]. As such, social marketing campaigns delivered via these apps may be an effective means of improving HIV testing in this population as a first step in reducing new HIV infections.

Data Collection

The study was approved by Lifespan institutional review board. All participants in both the individual in-depth interviews and focus group discussions provided written informed consent to participate and provided separate written informed consent for audio-recording.

First, we conducted in-depth interviews with 30 individuals. Eligible participants were recruited from the Rhode Island STD Clinic. Inclusion criteria included: age of 18 years or older; self-report of current gender identity as male; self-report of sexual contact with another man in the past 12 months; self-report a risk of HIV infection consistent with behavioral indications for PrEP [30]; testing negative for HIV infection on a rapid antibody test; and self-report of no history of PrEP use.

We used a semi-structured guide for the individual in-depth interviews. These interviews lasted between 30 to 60 min and each participant received a \$50 gift card for their time. Interview guides included questions about participants’ sexual risk and health behaviors, including their use of apps to meet sexual partners, their receipt of HIV prevention and treatment messaging on these apps, and the ideal content of future messages to be delivered via these apps.

Individual in-depth interviews were conducted by members of the investigative team.

Second, we conducted two focus group discussions with 18 individuals. Eligible participants were recruited from the [Redacted for Peer Review]. Inclusion criteria included: age of 18 years or older; self-report of current gender identity as male; report of sexual contact with another man in the past 12 months, and report of use of at least one app to meet sexual partners in the past 12 months. Participants in the in-depth interviews were not eligible to participate in the focus group discussions.

We used a semi-structured guide for the focus group discussions informed by the individual in-depth interviews. These focus group discussions lasted about 120 min and each participant received a \$100 gift card for their time. Focus group discussion guides include questions about participants' perceptions of their risk for HIV infection, their understanding and use of PrEP, and their preferences for advertising to promote HIV prevention and treatment engagement. Focus group discussions were facilitated by a local social marketing agency and were audio-recorded prior to transcription.

Data Analysis

A general inductive approach guided the analysis of data collected during the interviews and focus group discussions, allowing for the formulation of themes [31]. All interviews were audio-recorded and transcribed. Trained coders read the transcripts and identified emerging themes and patterns. A coding scheme was developed with iterative revisions until a final coding structure was achieved through consensus. The transcripts were then coded according to these categories using NVivo 11.

Results

A total of 18 individuals participated in focus group discussions. The mean age was 30.2 years, where participants ranged in age from 22 to 49 years old. All were cisgender men. Most identified as gay or bisexual (77.8%). Most (55.6%) identified their race/ethnicity as White, with 22.2% identifying as Hispanic/Latino and 22.2% identifying as Black/African American. Most participants had some form of health insurance coverage (83.3%).

A total of 30 individuals completed individual in-depth interviews. The mean age was 27.4 years, where participants ranged in age from 20 to 49 years old. All were cisgender men. Most identified as gay or bisexual (90.0%).

Most (63.3%) identified their race/ethnicity as White, with 13.3% identifying as Hispanic/Latino and 23.3% identifying as Black/African American. Most participants had some form of health insurance coverage (83.3%).

The results of the individual in-depth interviews and focused group discussions were categorized into three themes: (a) current exposure to marketing content on apps; (b) preferences for the format for an app-based social marketing campaign delivery; and (c) preferences for the content included in an app-based social marketing campaign.

Current Exposure to Marketing Content on Apps

Many participants reported seeing advertisements on the apps used to meet sexual partners:

I do see a lot of ads, yeah, especially with Grindr... Most of the ads with Tinder are probably them promoting themselves or trying to get people to pay for more in-app purchases. With Grindr, I did notice there was a lot of advertisement. (Interview #28).

There were diverse opinions on whether these advertisements were useful or engaging:

Grindr actually has become just, I mean, I've used it on and off for years, and I think, even recently, um, I did start using it again and whereas it used to be there was like a little ad at the bottom, now, just at times, ads will take over the screen and you can't get out of it for five seconds. I find it invasive and annoying, and I'm more apt to just not use it because of that reason (Interview #17).

I think they definitely help you because it just puts ideas in your head. Because I know there's a lot of ads that are on that app of like, 'Make sure you get tested,' or 'HIV testing, blah blah blah,' or 'This clinic here.' Cuz it tracks your location, um, which I think are really good because I think, like me, I mean I did. I'm like, sorry, but uh, my closest friend is – has never been into a clinic, and she's nervous to go into a clinic, and I can understand why because you don't know anything. And she wanted me to get with her, but I think, on that app, it kinda helps you to figure that kind of stuff out. (Interview #19).

I remember seeing things that were, if you wanted to get on some kind of medication or PrEP or whatever, or testing or whatever. It seemed if you were looking for that sort of thing and you were opening the app, that you could click on one of those things and you could get connected. I thought that was great actually and I think there should be more of that too. (Interview #28).

Preferred Format of Social Marketing Advertisements

Many participants reported seeing pop-up advertisements on the apps they used to meet sexual partners. When asked about what types of advertisements they were least likely to engage with, many expressed an explicit preference for advertisement in formats other than pop-up advertisements:

People don't really see the...like the pop-ups, people just X-out quickly (Interview #14).

Um, I think I'm probably not a huge fan of pop-ups. I think it's easy to dismiss a pop-up and just be like okay like regardless of like what comes up. (Interview #19).

The pop-ups. I've never seen anything useful. The pop-up are usually games or just some bullshit and it gives you this five-second time before you can close out of it, and I'm just waiting to close out of it. I've never gotten anything useful in the pop-ups. (Interview #29).

Some of the apps used by the participants delivered advertisements in the form of messages or in banners along the bottom of their phone screen and these were seen as more acceptable than pop-up advertisements, particularly because they could be viewed when participants were ready to engage. That is, while pop-up advertisements must be viewed the moment they are presented before being closed, these other advertising formats, particularly direct messages, could be viewed again at a later time in a user's inbox.

Just like it's less intrusive, and it's sort of like there. And it's like, uh, I feel like the banners are usually consistently there at the bottom of the page, so you're scrolling through and it's like oh, you can always see it (Interview #19).

I screenshot a lot. I will screenshot an ad, and then later say, 'Let's see' and go to the number. Like, I'm going to look at it later because I always screenshot something (Focus Group #1).

Although pop-up advertisements were considered invasive and bothersome by most participants, some men differentiated between pop-up advertisements with and without health information:

So I'm not gonna lie. I usually just like, you know, click away, but there has been times where it comes like with STD checks and stuff like that, and I'm like, oh, okay, well, that's good to know. Like that number is handy. (Interview #11).

I think it would be different, though for me so, when a pop-up comes up and it's five seconds that I'm staring at this – whatever is – it's for like, I think it's often a game or something stupid, and I don't like that, to me, I think that I consider it invasive cuz it's marketing a

product as opposed to if it was an ad that came up that talked about, you know, safe sex or something or of health concern. It might be annoying, but I would not consider that invasive. I would appreciate that. (Interview #17).

Preferred Content of Social Marketing Advertisements

Many participants described a preference for advertisements that feel grounded in the local community and directed them to local trusted institutions, stating that these messages feel credible and real:

If it was something that was clearly about like a clinic, a local clinic, or something, that would make me much more likely [to click] than some random ad that seems like it could be anything or may not apply to me or may be in a different area, like Boston or something. (Interview #18).

I think the fact that it seems local, if it says Providence or Rhode Island or whatever, for me anyway that like, this is, it's real in other words. If I see an advertisement that seems it's a very general thing, I'm not sure if it's a scam, not sure what it is really. I would say that definitely increases my likelihood that I would actually get connected to it (Interview #28).

Participants expressed mixed opinions on the images including in advertisements. Many men stated that the advertisement they commonly viewed on these apps featured provocative images of men. For some men, these images felt appropriate given that these apps are most often used for sexual networking:

If you get someone that most of the community will find attractive, they might stop and take a look. (Interview #4).

Now that I think about, it might be good 'cause may somebody's like, oh yeah, well, he's a hot guy and he takes PrEP, so I might as well too, you know? (Interview #11).

On the other hand, other men expressed that these images did not resonate with them or make them want to engage with an advertisement, particularly when they felt the images played to stereotypes about MSM:

Sometimes if it's just a hot guy, it's not relatable. (Interview #14).

I really like when I don't feel like I'm – if it's like – when I feel there's some stereotype to the message, it's a little bit of a turn off to me, cuz I do – being bisexual, I do feel I'm not part of the target audience a lot of times. I feel like I'm on the outskirts a little bit. That's

just me. I think that messaging can be very, even in the gay community, can be stereotypical sometimes. (Interview #28).

I don't know. There's something unethical about it. I feel like it's just promoting stereotypes, whether they're true or false, just where, obviously, it's there to target people who are men who have sex with men... I don't know. It's just something that borders on unethical, from my perspective, to perpetuate stereotypes. (Interview #30).

I don't like the fact that raw sex and all of that is being advertised [with provocative images]. People are going to go into it thinking, 'Oh, I'm taking PrEP' and they're not even taking it properly. 'Then I can just have sex with whoever.' (Focus Group #2).

Some men felt uncomfortable with these images, preferring direct messages that focused on facts.

Um yeah, it – I mean, eye candy is eye candy to me, but it's like, if it's something, um, more serious, then I would want it to be more serious. (Interview #17).

Hmm, in terms of ads, um, I guess like I'm fine with more just like text-based ads if we're talking about like something that's on an app. Um, I think it's like pretty effective to be just like free testing or like, uh, like something like that. (Interview #19).

Definitely not [an advertisement with an image of a shirtless men] cuz then I'm gonna think it's a porn advertisement. Yeah, maybe that. Something informative to make me think it's legit. (Interview #29).

The focus group participants arrived at a consensus, suggesting that a provocative image or message may be eye-catching, but that fact-driven messaging will keep attention and motivate them to engage:

If they're funny, or, like, a little vulgar, like, people are gonna look at it (Focus Group #1).

I think that if the information's there and it's not, like, spammy, I think the funny, like 'Fuck without fear' or 'Swallow this; will, like, get someone's attention. Then if you, like, go right into, like, facts, I think it will hold on to someone's attention (Focus Group #1).

Sort of, like, they always catch my attention, like, facts in one picture. Definitely, like, throw them in there, and then throw, like, a paragraph or two. Then fact, facts, facts. (Focus Group #1).

Discussion

We conducted individual in-depth interviews and focus group discussions to inform the development and implementation of a social marketing campaign to improve HIV

screening and engagement with HIV prevention and treatment services among MSM. Participants discussed their recent experiences with app-based marketing efforts and described their preferences for the format and content of a social marketing campaign. There was broad agreement among participants that a social marketing approach using advertisement on apps is a potentially effective means for reaching MSM to promote HIV screening and linkage to prevention and treatment services.

Participants reported frequently seeing pop-up advertisements on the geosocial-networking smartphone applications that they often used to meet sexual partners. These pop-up advertisements, when not providing information about a health issue, were often viewed as invasive and considered as something to be viewed long enough until they could be closed from their phone screens. However, in general, advertisements were universally viewed as an important means of reaching men who could benefit from HIV testing. Given the frequent appearance of these pop-up advertisements in the user environment, many participants expressed preferences for advertisements that are delivered in other formats, including banner advertisements displayed on the bottom of the screen or direct messages delivered to their inbox on the app. Some participants reported that they would be more likely to view these types of advertisements as they could be viewed passively (in the case of banner advertisements) or viewed when they wanted to or were ready to see and engage with them (in the case of the direct messages).

Many advertising campaigns directed towards gay and bisexual men feature provocative images of men. Consistent with prior research evaluating the effectiveness of social marketing messages among MSM [32–34], participants in the current study had mixed opinions regarding the potential use of these images in a marketing campaign. Consistent with research documenting the acceptability of sexually explicit images in social marketing campaigns in these virtual venues [35], some men felt that these images would be appropriate for the cultural context of the app, noting that these apps are commonly used for sexual networking. These men felt that these images would catch their attention and encourage engagement with the social marketing campaign. Other men felt that these images played to stereotypes of gay and bisexual men as promiscuous and preferred more neutral, direct, fact-based messaging that would encourage them to engage with the campaign. These divergent viewpoints are consistent with previous qualitative research regarding the use of sexually explicit media in social marketing campaigns, where some participants felt that provocative images may lead to individuals focusing more on their desired sexual encounters rather than the health promotion message being conveyed by the advertisement [35].

Regardless of the images used, most men reported a preference for messages that directed them to trusted

institutions (such as local clinics) as these messages would be viewed as credible. When men visit these institutions, providers might have an opportunity to repeat and reinforce the messages delivered online. This approach, an O2O service model, leverages social marketing on these apps to link men to local clinical services [36]. O2O models link online service utilization to offline clinical service uptake by identifying vulnerable populations, conducting outreach online, and using a variety of strategies and approaches to encourage, motivate, and link people to relevant clinical services [36]. An O2O model may begin with a social marketing campaign that provides information and directs potential clients to a trusted local clinic, providing a web link to schedule testing appointments via an online booking system and receive booking confirmation [36]. Such models have been successfully piloted with MSM in Canada and Thailand, linking over 600 people to clinical services over the span of 12 months [18, 19]. As such, there is a need for future research to develop, implement, and evaluate these models in the United States.

These findings are not without limitation. Interviews were conducted in English only, limiting our generalizability to English-speaking communities of MSM in Rhode Island. Future research should conduct similar interviews with MSM who speak languages other than English to ensure that a future social marketing campaign among MSM reaches all members of the community regardless of their language background. Further, there is an ongoing need for broader perspectives from other subsets of MSM, including those of different racial/ethnic and socioeconomic backgrounds from those included in the current study, requiring further research to design campaigns to meet the needs of these communities.

Conclusion

Findings from these individual in-depth interviews and focus group discussions offer practical recommendations for developing a social marketing campaign that uses advertisement on apps to increase engagement with HIV prevention services among MSM in an O2O service model and accelerate progress towards the goal of ending the HIV epidemic. Such a campaign should present advertisements in the app environment in the form of direct messages and banners that involve both provocative images and fact-based messaging to direct individuals to trusted offline service providers.

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