Perceptions of Sexual Health Websites by Low Income Urban African American
Youth and Service Providers

by
Dacia Williams

A THESIS

submitted to

Oregon State University

Honors College

in partial fulfillment of
the requirements for the
degree of

Honors Baccalaureate of Science in Kinesiology
(Honors Scholar)

Presented February 9, 2018
Commencement June 2018

AN ABSTRACT OF THE THESIS OF

Dacia Williams for the degree of <u>Honors Baccalaureate of Science in Kinesiology</u> presented on February 9, 2018. Title: <u>Perceptions of Sexual Health Websites by Low Income Urban African American Youth and Service Providers.</u>

Abstract approved:_____

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Low-Income urban African American (LIU-AA) youth are at high risk for HIV/STIs and adolescent pregnancy. Sexual health websites (SHWs) offer an inexpensive, easy-to-disseminate, and potentially highly-accessible method of improving sexual health knowledge, awareness, and help-seeking. The present study examined engagement regarding sexual health websites for at-risk, LIU-AA youth. We conducted focus groups in Chicago (n= 5 groups, total n= 29 youth) with LIU-AA adolescents, who reported a sexual-health risk event (15 years-17 years). Both same- and mixed-gender groups were conducted. We also conducted focus groups with adolescent health/service providers (n= 4 groups, total n= 22 providers).

Youth generally mistrust the internet as a credible source of information. Youth and providers agree that trust in SHWs is increased by: (a) the perceived credibility of the professional and organizational developers of the website, (b) website recommendations by highly credible local providers, and (c) inclusion of testimonials/stories by youth with sexual health problems. Trust decreases when: (a) sexual health information appears on open access websites not specific to sexual

health (e.g., Wikipedia, Ask.com), and (b) professional credentials of site developers or the "date last modified" are absent. We identified a variety of environmental, person, and website factors that may be exploited to improve access to and increase trust in SHWs for LIU-AA youth.

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I understand that my project will become part of the permanent collection of Oregon State University, Honors College. My signature below authorizes release of my project to any reader upon request.

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Dacia Williams, Author

Perceptions of Sexual Health Websites by Low Income Urban African American Youth and

Service Providers

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Abstract

Low-Income urban African American (LIU-AA) youth are at high risk for HIV/STIs and adolescent pregnancy. Sexual health websites (SHWs) offer an inexpensive, easy-to-disseminate, and potentially highly-accessible method of improving sexual health knowledge, awareness, and help-seeking. The present study examined engagement regarding sexual health websites for at-risk, LIU-AA youth. We conducted focus groups in Chicago (n= 5 groups, total n= 29 youth) with LIU-AA adolescents, who reported a sexual-health risk event (15 years-17 years). Both same- and mixed-gender groups were conducted. We also conducted focus groups with adolescent health/service providers (n= 4 groups, total n= 22 providers).

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Introduction

Background

In the United States, sexual health problems such as reproductive health, sexual trauma, and sexually-transmitted infections (STIs) are common among adolescents [9, 10]. Low-socio-

economic-status (SES) individuals—specifically, low-income urban African American youth residing in low-income neighborhoods—are at a higher risk of facing negative health-related issues due to a lack of access and/or utilization of sexual health resources and socioeconomic barriers that exist [9,10,12,14,16,19,17,28]. The need for sexual health promotion for African American youth residing in urban areas in the United States is clear. Sexual education in school is a good place for youth to begin information gathering, but it is often not enough. Subject matter, students' comfort level in participation, and validity of information are all issues that make school-based interventions a potentially-lacking form of sexual education. Furthermore, school-based sexual education does not reach youth that are geographically isolated or those that do not attend school [11,24].

Healthcare providers offer an additional avenue for the exploration of sexual health resources that are available for LIU-AA youth. Providers working directly in sexual healthcare such as in schools or medical clinics as well as those not directly in distributing sexual health information such as in community-based organizations (CBOs) have different perspectives on the best way for youth to obtain sexual health information online.

Emergence of Sexual Health Websites

In an effort to extend sexual health information to a wide group of youth, alternative methods of information distribution have surfaced, among which are sexual health websites (SHWs)[5,15]. Today's youth are among a generation who grew up with technology at a societal forefront, making them skilled multi-taskers who utilize technology as an indispensable part of their lives [23]. SHWs offer an inexpensive, easy-to-disseminate, and potentially highly-accessible method of improving sexual health knowledge, awareness, and help-seeking. They can also provide confidentiality and valid information for those adolescents who seek private

health care [31]. Furthermore, African-American youth report using the internet more frequently than white teens, making online websites an especially good avenue for the distribution of sexual health information [22].

The internet provides a plethora of information and educational resources on sexual health for youth, however, for internet-based health promotion to be effective, there must be a high level of engagement. Engagement in online sexual health information is particularly important for at-risk populations who may not have this information easily accessible or in a credible form elsewhere [1,13,30,33]. Healthcare providers can use online sexual health information to help youth engage during a service visit or to direct youth towards other resources.

Engagement

People in general, and youth specifically, have a variety of motivations (e.g., perceived risk, degree of distress) for seeking information on sexual health [8,25,26]. The source of that information is dependent upon several factors such as ease of access, cost, trust, and privacy. For many, trust is the essential factor. This means that ultimately, no matter the cost or convenience of a particular source of information, it has to be deemed trustworthy by the person seeking help [33]**.** We can generalize to say that engagement of a SHW or sexual health program may be motivated by a high degree of trust in the source or sponsor of that nature of information. Previous work suggests that many youth find online sexual health information non-credible and untrustworthy [17,21,27,32] and many have difficultly knowing when or where to find credible information online [19].

Purpose of Current Study

The present study focuses on LIU-AA youth in Chicago and healthcare service providers in Chicago and San Francisco and aims to provide current discussion of the limitations and facilitators of engagement and trust in terms of SHWs. The intention of this study is to analyze ways in which engagement can be strengthened to increase trust of online sexual health information by youth.

Methods

The present work is part of a larger community-based qualitative investigation called the Two-Cities Study, which examined ecological factors that impact social and sexual development among urban African American heterosexual youth conducted between 2011-2014 [7]. Two initial cohort studies were conducted which provided data on important areas of sexuality, sexual health, and sexual health interventions to LIU-AA youth including identifying important themes relating to youths use and perceptions of internet based sexual health sites. These themes were expanded on in the focus groups providing data for the present report. Focus groups were conducted with youth in Chicago and with health/sexual health providers of youth in Chicago and San Francisco. The institutional review boards (IRB) at all sponsoring institutions approved study procedures.

Provider Focus Groups: Procedures and Sample

We conducted focus groups in 2012 with experienced providers (> 10 yrs.) of sexual health or social services for adolescents in San Francisco and Chicago (N = 4 groups; 2/city; 4-7 participants/group; Total N = 22; 32% Males, 68% Females; Age range 19-73 yrs; 50% African American, 32% Caucasian; 18% Other). Providers were recruited from agencies that serve gay/bisexual youth and heterosexual adolescents, and young adults in the low-income neighborhoods of the adolescent cohort survey participants. Focus group (2/city) participants

were selected based on recommendations by study investigators and service providers in Chicago and San Francisco. Participants represented 19 different agencies/programs. In each city, the focus groups were stratified to represent two broad classes of professional experiences with regard to sexual health: (a) the first group represented individuals from settings that were more highly focused on sexual health matters including schools (e.g., sex education teachers, school-based reproductive health clinics), medical (e.g., sexual health clinic), and CBOs (e.g., frontline staff with direct interactions with youth in programs about sexual health), and (b) the second group represented individuals from settings that included general services to youth, or social service programs wherein sexual health was not a special focus. These members represented CBOs (e.g., after school sports and education programs; programs for homeless youth) and medical settings (e.g., from primary adolescent or pediatric health care clinics). Through this stratification method, we hoped to generate a broader range of opinions on SHWs. Focus groups were conducted at De Paul University's communication sciences center in Chicago or at a commercial focus group lab in San Francisco. The focus group setting provided privacy, observation rooms for video and audio recording, audio hook ups for meeting rooms, and accommodations. Refreshments and transportation vouchers were provided. Facilitators were trained as described previously, and participated in mock focus groups prior to conducting their first study groups.

Provider Focus Groups: Measures

We explained the rationale behind the internet portion of the focus group to providers indicating that SHWs are an underutilized source by youth due to mistrust, lack of interest, and/or inaccessibility (i.e., blocked sites, no home computer) that have the potential to provide a

novel platform for sexual health intervention. Focus group questions (see below) examined 3

themes regarding provider development of SHWs as well as access and trust.

The questions are as follows:

Agency Development and Promotion of SHWs: "Our prior work with youth suggests that a number of factors impact their use of the Internet for sexual health information. Among these reasons is a lack of awareness of sites like the ones we just showed you and a perception that information from the Internet on sex and sexual health may not be trustworthy. Has your agency ever developed a sexual health website or used existing sexual health websites in your sexual health program activities? If so, tell us a little bit about your experiences with that. What role do you see your organization playing in helping youth to be good consumers of sexual health information from the Internet and to recognize that certain sites have legitimacy? "
Trustworthiness of SHWs: [Show 2 example websites] "What ideas do you have for increasing the trust youth have in the information they receive from sites such as the ones I just showed you?"
Access to SHWs: "Another reason that youth don't use the Internet is that some websites were blocked from the computers that they use. Access may be difficult, for example, when youth used computers at a school or at a community organization where they participated in after-school programs. Does your organization currently provide youth with online access? Would your organization be open to providing access to sexual health-related websites like the ones you just saw? Why/why not?
What challenges, if any, do you think your organization will face in providing access to sexual health-related websites that were vetted by sexual health experts?"

Youth Focus Groups: Procedures and Sample(s)

We conducted focus groups in Chicago (N = 5 groups; 6-9 participants/group; Total N =

29; 48% Males, 52% Females) with adolescents aged 16-19 years. Four groups were single

gender only, and one was mixed gender. Only sexually experienced youth with some sexual

health risk history were recruited to better represent the population that would utilize HIV/STI

prevention programs. Risks included a history of STIs, pregnancy, pregnancy scare, sexual

concurrency, or having had multiple sexual partners in the past year. Focus groups were

conducted at De Paul University's Communication Sciences Center in Chicago. The focus group

setting provided privacy for groups, an observation room for video and audio recording, audio

hook ups for meeting rooms, and accommodations. Refreshments and transportation vouchers

were provided. Participants received a cash incentive of $50 for participating in a two hour focus

group. Group facilitators were African American and gender matched except in the mixed gender

group where there were two facilitators (male and female). Facilitators were trained by a highly

experienced focus group trainer who has worked extensively with African American focus

groups at the national level, and by our research team. Facilitators participated in several mock

focus groups prior to conducting the study groups.

Youth Focus Groups: Measures

Among the topics discussed in the focus groups we included a series of web-based

questions on the internet to gather more information on how youth are already utilizing the internet

for sexual health information. Focus group questions (see below) examined 5 themes regarding

access, trust, ideas on improving sites generally and specifically with interactive elements, and use

of social media to disseminate SHWs.. The questions are as follows:

Use of SHWs: "Have any of you used a sexual health website to get information on sex, birth
control, STIs, or other sexual health topics? Name some of the sites you visited?
Likes/Dislikes?" [Probes]: What the site was, Why you liked the site, What you learned from the
site?"
Trustworthiness of SHWs: "Have you found sites online that you really don't trust at all?"
[Probes]: What the site was. Why it was not trusted.
Improving Trustworthiness of SHWs. "We'd like to find some ways to make it easier for youth to
get sexual health information on the Internet and improve sites so that they can be trusted. If
there were websites that you knew were specifically developed by experts on sexual health and
youth, would this help you and your friends trust these websites more? What about this would
make you trust it more? What kinds of experts should be developing the sites (e.g., doctors, gyn,
nurses, counselors, teachers)? [If No]: Why would you still not trust the site? Is there something
else that would help you and your friends trust an Internet website more? What other ideas do
you have for helping create Internet websites that youth would trust?"
Improving SHWs Generally: "Suppose we wanted to create a website specifically for young
people like you that was about sex and sexuality, and that young people viewed as trusted. What
kinds of topics should be on this site? [Probes]: Relationship issues, How to's sexual practices,
How to talk about sex?"
Improving SHWs – Interactive Sites: "If online sites gave youth a chance to ask questions and
comment on how good the answers were, would this make the sites better? What if any concerns
do you have about being able to ask questions and offer comments on the site? Is there anything

else that should be on the site? [Probes]: Interactive IM/ live chats with an expert, Blogs, Message boards, what else?"

Data Analysis

Audio recordings were transcribed into Microsoft Word files. We used structural coding (as described by Saldaña) to organize the data into the major themes (described above) and identified new themes that went beyond the questions asked [29]. Utilizing a team approach to qualitative data analysis we continued to code individual themes into sub-themes following an iterative process. Two independent coders reviewed the transcripts and coded passages into the original structural codes and noted disagreements/discrepancies with that process. Consensus discussions were conducted to arrive at an agreed upon set of themes/sub-themes.

Results

Overview

We conducted descriptive and structural coding to identify issues regarding internet and SHW engagement. Website authentication (i.e. having a website professionally endorsed), the existence of open contribution sites (i.e. Wikipedia, Yahoo Answers, etc.), and need for increased privacy were factors that youth and providers agreed could influence youth engagement in the material. Youth spoke in favor of presenting testimonials on websites to increase engagement in SHWs, while providers mentioned in-office tactics that they could use to increase trust in SHWs by youth. The next sections depict the main themes present among providers and youth, some of which are common themes between both groups. Tables 1 and 2 (see below) provide qualitative data from both the provider and youth focus groups, respectively. A full list of focus group quotes is provided in the appendix.

Providers

Providers identified a number of important issues related to engagement and trust

including privacy, provider-specific resources, website authentication, and open contribution

sites. Providers discussed the general lack of trust of the internet and SHWs specifically.

> One thing we heard from youth was that they don't know what to trust, what's
>
> trustworthy and what's not on the internet… (C,P,2,36)[1].

> …there was a perception that information from the internet on sex and sexual
>
> health just wasn't trustworthy…they didn't know what to trust." (SF,P,1,21)[1].

Providers felt that by being in a specific practitioner setting, they could address the general lack

of trust shown by youth regarding internet use and SHWs. Providers also mentioned specific

techniques to help assist youth using resources that they had to offer such as providing a list of

specific, credible sexual health websites or counseling youth in a confidential service visit.

Privacy. Providers mentioned the effects of a youth's environment as a source of non-

engagement in SHWs. For example, a computer at home might be shared by many members of

the same family and youth might feel uncomfortable or embarrassed searching for sexual health

information in that setting. At the same time, youth may feel they cannot be fully engaged in the

material they are searching for if they feel their privacy is being violated (Table 1). This lack of

privacy inhibits SHW use. In order to increase engagement, SHWs must be easily accessible

from a private location or device.

Provider Resources for Youth. Providers are aware that youth are in a private

environment when they come in for an appointment. This is called a confidential service visit.

Providers believe this is a time when youth feel they are in an environment where sensitive

topics can be discussed and often take this opportunity to discuss SHW use with youth in-office.

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[1] Note: Passage identifiers in parentheses: SF= San Francisco, C = Chicago, P=Provider, Group
Number, Transcript Page Number

Examples include providing office computers for private SHW use, explaining website navigation to youth, and providing youth with a handout of suggested, reliable SHWs. A confidential service visit allows youth to access SHWs with provider direction. By providing youth with information about different website types and even lists of credible websites, providers are able to teach the basics about finding a website that can be trusted.

   Authentication & Open Contribution. Providers considered SHWs that were authenticated by healthcare professionals or well-respected government agencies. There was a consensus among focus group participants that youth generally perceived online material as untrustworthy. There was a generalization that it was very hard to trust any information found online, but that it was more credible when it was an authenticated website. Youth who are using websites with good authentication likely have a higher level of engagement in the material provided by the website. Providers noted that they generally felt youth could differentiate between credible and non-credible websites as seen in Table 1, yet some providers made a note of not being as direct with youth about these matters as they could have been. These providers mentioned that they should teach youth how to differentiate between credible, trustworthy websites and less credible, open contribution sites. Open contribution sites include sites such as Wikipedia or Yahoo Answers, where the information on the site can be manipulated by the general public.

Table 1
Focus Groups: Providers

Themes	Selected Passages
Privacy	"They're not looking [sexual health information] up at home because often the computer is shared by many people in the family and so they do not look it up" (SF,P,1,24). "It's also privacy and access. If you don't have your own computer and your own room that you can lock, are you going to sit at a public computer, in your living room, or in the public library…" (SF,P,2,47).
Provider Resources for Youth	"We have a whole-it's called 'the cru room' because the CRU-Committee Responsible United- the social work group for the gay, bisexual, Latino, and African-American males is their space that they have their meetings in, but it's a kind of community space; anybody can go in there, including any youth, but it's like a safe space for the CRU guys. They go and use the computer in there…they can look up whatever they want, access any kind of information…" (C,P,1,32). "A lot of times what I'll do in my office in private or in groups is…show [youth] the sites, or show them how to put in searches, but specifically leading them to sites, because young people are actually saying that they think some of this [valid] information is inaccurate…" (SFP2-40).
Authentication	"…we ask young people, would you trust a website that was created by sexual health experts? They generally say yes" (SF,P,2,44). "…we found…most young people actually do understand that CDC is a trusted source, WHO is a trusted source, hospitals, doctors are a source…so if your website pops up and it has the CDC logo on it, it becomes a trusted source…if it's just a random website, they probably will not trust exactly, absolutely, what is on the website" (SF,P,1,23-24).
Open Contribution	Interviewer: "…[have you shown youth] how to tell the difference [between trustworthy and non-trustworthy websites]…how have you done that?" Provider: "…I don't think we've done it good enough…Wikipedia, we shouldn't go on—Like I don't think I've been that direct with youth. That's something I would definitely work on." (C,P,2,36). "…we provide them with sexual health information that's accurate…we tell them sites like Wikipedia can be changed by anybody in the whole world, so of course like if you get your information off Wikipedia you're going to come away from the internet thinking it's not trustworthy because it's Wikipedia" (C,P,1,30).

Note: Passage identifiers in parentheses: SF= San Francisco, C = Chicago, P=Provider, Group Number, Transcript Page Number

Youth

Youth represented similar views as the providers. Youth looked at the themes of privacy, authentication, open contribution, and testimonials to better enhance their own trust in SHWs. Youth focused on website features that could be manipulated to provide better engagement.

Privacy. Youth agreed that privacy was a necessary factor when searching for information on sexual health, though they didn't talk about privacy to the extent of the providers. Youth mentioned confidential, counseling-type hotline calls as a way to get sexual health information privately. Youth also stated that being able to ask questions anonymously on a website might provide them with a platform to address issues they might not feel comfortable bringing up in person. With the necessary privacy to talk about topics they might find uncomfortable, youth are able to engage more fully in the SHWs (Table 2).

Authentication/Open Contribution. We found that youth viewed open contribution sites as less trustworthy. Youth listed specific websites that they felt were not reliable including Wikipedia and Yahoo Answers—sites that can be modified by the general public. However, if a website was professionally vetted (by medical professionals or respected healthcare agencies), youth were more likely to trust the information found on the website. As shown in Table 2, youth felt that SHWs were more trustworthy when healthcare professionals gave their specialized opinion on a specific website. The focus groups portrayed youth as concerned about the source of their information and found that youth do pay attention to the credibility of websites they use.

Testimonials. Youth considered SHWs that included testimonials by youth or health professionals more trustworthy. Tutorials are typically engaging, interactive features of the website that include real people, or real stories about a specific situation. Youth felt that having

testimonials present on SHWs helped them relate and trust the given material and the source.

Youth perceived SHWs more positively if they included visuals or videos of real life situations

or clips of people talking about sexual health problems (see Table 2). Having testimonials

present also helped youth feel like they could parallel their health experiences to that of someone

similar, therefore increasing their engagement in the particular SHW.

Table 2
Focus Groups: Youth

Themes	Selected Passages
Privacy	"Counseling…numbers in, like, your area or just…confidential call type things…that would be helpful" (Y,FG,1,74). I: "So if you have specific questions, you could put the question anonymously on [a website Q & A section] there and then different people can answer the question" (Y,FG,1,75). FR: "Yeah".

Authentication	I: "What if there were websites that you know were specifically developed by experts on youth and sexual health. Would this help you guys trust those? Would you trust those websites?"
	    MR: "Yeah…because you said professionals, right?"
	    I: "What kind of professionals do you think should be putting stuff on that website?"
	    FR: "Doctors."
	    MR: "People with master's degrees about the stuff."
	    MR: "Clinical" (Y,MG,92-93).
	
	I: "So we'd like to get sexual health information on the internet and to improve sites so that they can be trusted…What other ideas do you have for helping create Internet websites that you would trust?"
	    FR: "Experts" (Y,FG,2,93).
	    FR: "Especially a gynecologist."
	    FR: "All the doctors that have to do with sex and STDs and curing stuff, all of them" (Y,FG,1,68).

Open Contribution	I: "…anybody found websites that weren't helpful when you were trying to find information about sex or sexuality? Websites that you were like, no, I don't trust that?"
	    FR: "Ask. Ask.com."
	    FR: "Answers.com."
	    FR: "Wikipedia helped."
	    FR: "It's not reliable."
	    MR: "…anybody can just write on that, so I don't trust that too much" (Y,MG,91-92).
	
	I: "Have you found any sites online that you don't trust at all when it comes to sexual health or sex topics, that you just don't trust?"
	    FR: "I'd say Wikipedia [is not trustworthy]…'Cause that's one of the websites that some of my teachers tell us not to go to, because that I've learned…sometimes, Wikipedia lies…"
	    FR: "Regular people can edit it [Wikipedia]…You can't trust it" (Y,FG,1,66-67).

Testimonials	"And maybe have like some videos and real life situations [regarding sexual health problems]. That'd be good on there" (Y,MG,99). "And I like listening to people that had the experience. Like if I had the experience and they had put on there what happened to them, then you could relate. You're like, oh, yeah, that happened to me, too" (Y,MG,94).

Note: Passage identifiers in parentheses: Y=Youth, FG=Female Group, MG=Male Group, Group Number, Transcript Page Number. Passage identifiers prior to quotes: I=Interviewer, MR=Male Youth Respondent, FR=Female Youth Respondent.

Discussion

Overview

Our results indicate that engagement is important for youth in their search for sexual health information online. Providers feel there are still areas lacking in order for youth to have an engaged online experience, but they have many tools to help combat the deficiency of sexual health information youth may be receiving elsewhere. Youth are confident in their ability to differentiate between credible websites, but many wish there was a private platform available for

them to ask questions and get answers anonymously. While there are still steps that can be taken to further increase youth engagement in SHWs, there are other areas—such as youth's ability to determine the credibility of a website—that seem to be less of a concern.

Engagement

Engagement in SHWs requires that youth trust the information provided. Youth and providers agree on three factors that surfaced from our analysis. First, youth indicated greater trust in sites if the information could be authenticated by a healthcare representative [2,18]. Second, trust was lower when information was taken from an open contribution site. Last, youth privacy is crucial to a high level of engagement in the SHW. Our findings indicate that the majority of youth would trust a list of websites provided to them by a healthcare provider. Directed exposure by a healthcare professional to credible websites simplifies the engagement process and may increase youths' motivation to use online sites. This is also supported by the results of a randomized control trial, which found that youth who were directed to a list of credible websites were more likely to use the internet to search for sexual health information [20].

Recommendations

Both providers and youth agree that privacy while accessing SHWs is still lacking. A solution to increase privacy could be established through a school-based intervention that provides easy-to-access SHWs for youth in a private environment. Youth mentioned specific website features that they felt would make websites more desirable and be sought after more frequently. Positive SHW attributes were identified as those that contained more live/real-life videos/situations to promote trust. By providing access to SHWs that are exclusively for youth in a location that provides privacy, websites may become more desirable, trust may increase, and

there may be an overall higher usage of the websites by youth in the school environment.

Future Work

Results of the current study suggest it may be relevant to examine a) personal motivations for using SHWs besides addressing common sexual health problems (e.g., sexual identity, relationships, sexual pleasure) and b) the possible role of social media in representing another avenue for accessing SHWs. The exploration of personal motivations might enhance knowledge behind the specific types of SHWs youth are using as well as what content might be the most useful to promote. Social media provides an additional platform for the access and engagement of sexual health information in a way that many of today's youth are comfortable with.

Limitations

Our approach required that we use a data set from the Two-Cities study of 2011-2014 [7]. Generalization of our findings to the current year is unknown, but likely answers among focus group participants conducted today would remain consistent with the results of the present study. The focus group methodology used in the Two-Cities Study may not be a platform that is best-suited for the needs of the present study. The Two-Cities Study is based on an opportunistic sample from a small number of cities, and is therefore, of unknown generalizability to a larger sample size or population.

Conclusions

The present study characterizes limitations related to the engagement of current online sexual health promotion approaches in the United States. Specifically, our study suggests that engagement may be facilitated by factors that increase trust in sexual health websites such as directed engagement, the ability to differentiate between open contribution and authenticated websites, and lastly, website browsing in a private environment.

Appendix

Engagement

Code: Youth Perceived Credibility of Sexual Health Websites

Definition: Specific website features that youth feel increased or decreased website credibility or trust

Features Increasing Trust

I: "What if there were websites that you know were specifically developed by experts on youth and sexual health. Would this help you guys trust those? Would you trust those websites?"
MR: "Yeah…because you said professionals, right?"
I: "What kind of professionals do you think should be putting stuff on that website?"
FM: "Doctors."
MR: "People with master's degrees about the stuff."
MR: "Clinical" (Y,MG,1,92-93).

"And I like listening to people that had the experience. Like if I had the experience and they had put on there what happened to them, then you could relate. You're like, oh, yeah, that happened to me, too" (Y,MG,94).

I: "If there were websites that you knew that were specifically developed by experts on sexual health and youth, would this help you and your fiends trust these websites?"
MR: "Yeah, of course. Yeah."
MR: "No, because, like, the internet will tell you anything out there…It's just a whole bunch of pimps out here talking…" (Y,MG,2,59-60).

I: "What kind of experts should be developing these websites?"
MR: "People that got AIDS."
MR: "People that got AIDS, STDs, yeah."
MR: "Or that been through all that stuff, gonorrhea, all that" (Y,MG,1,65).

I: "So we'd like to get sexual health information on the internet and to improve sites so that they can be trusted…What other ideas do you have for helping create Internet websites that you would trust?"
FR: "Experts" (Y,FG,2,93).
FR: "Especially a gynecologist."
FR: "All the doctors that have to do with sex and STDs and curing stuff, all of them" (Y,FG,1,68).

Features Decreasing Trust

"I: …anybody found websites that weren't helpful when you were trying to find information about sex or sexuality? Websites that you were like, no, I don't trust that?"
FR: "Ask. Ask.com."
FR: "Answers.com."
FR: "Wikipedia helped."
FR: "It's not reliable."
MR: "Like…anybody can just write on that, so I don't trust that too much" (Y, MG, 1, 91-92).

I: "Have you found any sites online that you don't trust at all when it comes to sexual health or se topics, that you just don't trust?"
FR: "Yeah."

FR: "I'd say Wikipedia…'Cause that's one of the websites that some of my teachers tell us not to go to, because that I've learned…sometimes, Wikipedia lies…"
FR: "Regular people can edit it…You can't trust it" (Y,FG,1,66-67).

I: "Is there any reason you wouldn't trust the site?"
FR: "Or if it ain't accurate."
FR: "If it's not updated" (Y,FG,1,68-69).

I: "…are there any reasons that you would not trust a website like this?"
MR: "Yeah if it's just a doctor or somebody speaking on just to tell us."
MR: "Or some random person just talking" (Y,MG,1,65).

Code: Site Trust

Definition: Any attribute of a sexual health website that facilitates or inhibits youth's trust in the accuracy or credibility of the website and its content.

"…if it's a CDC's supported resource or backed—and again it's really just if they're able to validate where the information came from—especially when you start talking about statistics and giving percentages…[it's valid]…" (C,P,1,31).

"If they find it appealing, then I think they're going to trust it" (SF,P,2,43).

"…there's also a website which integrates all that information plus blog posts that are entered in by young people, and then checked for medical accuracy by the staff…" (C,P,1,28).

I: "how could we help them increase the trust and the information that they receive from those sites" (C,P,1,30).

R: "I would tell them look at the source…like who's saying it…look for some copy write information or what agency is putting this out there, now go look up that agency…look around and see if they have things that prove that they're actually like a legitimate organization" (C,P,1,30).

"…we ask young people, would you trust a website that was created by sexual health experts? They generally say yes" (SF,P,2,44).

"…we found is young people, most young people actually do understand that CDC is a trusted source, WHO is a trusted source, hospitals, doctors are a source…so if your website pops up and it has the CDC logo on it, it becomes a trusted source…if it's just a random website, they probably will not trust exactly, absolutely, what is on the website" (SF,P,1,23-24).

"I think equal parts youth input and like health professional input are important…" (C,P,1,31).

"So they're really tricky because they look very teen friendly, and they're using the buzzwords, and it's not healthful or helpful information…" (SF,P,1,24).

"…there was a perception that information from the internet on sex and sexual health just wasn't trustworthy…they didn't know what to trust" (SF,P,1,21).

I1: "…when talking to youth about the availability of these websites or point them to different websites to go to if they have questions or to get more information, is there anything that you guys do to help youth be more discriminating and good consumers of sexual health information on the internet? So do you do anything to help them understand what's a good source and what's not or how to differentiate between that?" (C,P,1,29)

I: "What would make you trust [a website] more?"

R: "…It's accredited."
I: "So if it's accredited, if you know that they are people whoa re really experts or accredited, if it's sponsored by like—"

R: "Right. Like, I need to see the scientist's picture along with their name. If I need to like background check on, like, they're like real people instead of like fake people website." (Y,FG,1,67).

R7: "…we provide them with sexual health information that's accurate…we tell them sites like Wikipedia can be changed by anybody in the whole world, so of course like if you get your information off Wikipedia you're going to come away from the internet thinking it's not trustworthy because it's Wikipedia" (C,P,1,30).

I: "…how to tell the difference [between trustworthy and not trustworthy websites]…how have you done that?"
R3: "…I don't think we've done it good enough…Wikipedia, we shouldn't go on—Like I don't think I've been that direct with youth. That's something I would definitely work on." (C,P,2,36).

"…there was a perception in general that the internet was not trustworthy for sexual health information" (C,P,1,27).

I: "One thing we heard from youth was that they don't know what to trust, what's trustworthy and what's not on the internet…" (C,P,2,36).

"What we heard from young people is that they'll Google something, and then something comes up immediately, but they might not even trust it, even if it does come from certain sources" (SF,P,2,42).

"Oftentimes they would just Google something and oftentimes it's not like they went directly to WebMD or something that had another more trusted website address…" (SF,P,1,21).

"…young people didn't know that there were sexual health websites that were credible…so even if they did find a sexual health website, they did not trust it" (SF,P,2,40).

"And maybe have like some videos and real life situations [regarding sexual health problems]. That'd be good on there" (Y,MG,99).

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