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Information Age: Do Urban African American Youth Find Sexual Health Information Online?

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Digital media has the potential to serve as a tool for sex education, but access to and use of digital media varies across social class and race/ethnicity (Gilliam & Brindis, 2011). The Internet may be the most easily accessed form of digital media and accurate information on sexual health is available on the Internet (e.g., iwannaknow.com, bedsider.com) (also Howard, Davis, & Mitchell, 2011). High percentages of teens and young adults have sought health information online, with females somewhat more likely than males to do so (e.g. Jones & Fox, 2009). However, national level data suggest that less than one fifth of teens seek information on sensitive topics, such as sexual health, online (Lenhart, Purcell, Smith, & Zickuhr, 2010). Youth may also find sex-related information by chance (i.e., incidental information acquisition) in the course of other online activity (Erdelez, 2005; Veinot,

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Blinded Reference #1

(Catania & Dolcini, 2012; Dolcini, Catania, Harper, Boyer, & Richards, 2012)

Blinded Reference #2

(see Catania & Dolcini, 2012)

Blinded Reference #3

(also see Dolcini et al., 2012)

Catania, J. A., & Dolcini, M. M. (2012). A social-ecological perspective on vulnerable youth: Toward an understanding of sexual development among urban african american adolescents. *Research in Human Development*, 9(1), 1-8. doi: 10.1080/15427609.2012.654428

Dolcini, M., Catania, J., Harper, G., Boyer, C., & Richards, K. A. M. (2012). Sexual health information networks: What are urban african american youth learning? *Research in Human Development*, 9(1), 54-77. doi: 10.1080/15427609.2012.654432

Meadowbrooke, Loveluck, Hickok, & Bauermeister, 2013). In order for online sexual health promotion efforts to reach greater numbers of youth, it is important to obtain a more in-depth understanding of the conditions under which youth encounter sexual health information online and the types of information obtained. Such research should include urban African American youth living in low-income neighborhoods because they are a high priority population for sexual health promotion (Rangel, Gavin, Reed, Fowler, & Lee, 2006). Using qualitative methods, we examined general use of the Internet, specific health topics (e.g., contraception, STIs) and the conditions under which urban African American heterosexual youth found sexual information online.

Methods

The present study is part of a larger community-based qualitative investigation of urban African American heterosexual youth (Blinded Reference #1). The institutional review boards of the sponsoring institutions approved the study.

Participants and procedures

Participants were recruited from youth-serving agencies located in low-income neighborhoods in Chicago and San Francisco in 2010. Youth were eligible for the study if they were African American, identified as heterosexual, and between the ages of 15-17 (inclusive). The sample consisted of 81 teens (41 males, 40 females; N= 95 screened, n = 8 ineligible, n = 6 declined). Half of the females and three-quarters of the males were sexually experienced (i.e., reported vaginal, anal, or oral sex). We obtained written informed consent from parents/guardians and written assent from the youth. Participants completed semi-structured interviews conducted by trained, ethnic-minority interviewers. Interviews were digitally recorded, transcribed, and reviewed for accuracy.

The interview was designed to address a range of social and ecological factors relevant to social development and sexual health (Blind Reference #2). In this study, we focus on use of the Internet. Data were obtained with both direct close-ended and open-ended questions about the Internet, including the amount of time generally spent on the Internet and the range of sexual health specific information searched and viewed while on the Internet.

Data analysis

Given the narrow focus of the present study, we used structural coding as our primary coding approach and generated hypotheses based on our interpretation of the (Saldaña, 2013 and Ulin et al, 2005). The research team first read and discussed a subset of the transcripts, and then used directed content analyses (Hsieh & Shannon, 2005) to identify and define initial codes. Two team members completed two rounds of coding and reliability checks on subsets of the cases in order to refine the coding scheme. The remaining cases were coded by the primary coder, with regular checks and revisions in consultation with the team. Data related to seeking or finding sexual health information online were entered into charts by content area, separately by gender.

Results

General Internet use

All respondents reported having used the Internet. The most common uses were social networking (e.g., Facebook, MySpace), school related activities (e.g., assignments, grading), and watching music videos and movies. Female participants were more likely than males to report using social networking sites (SNS); a few males reported no SNS use.

Sexual health information

Approximately equal numbers of males and females had obtained sexual health information on the Internet (47%); (Blinded Reference #3). Youth reported finding information on a variety of topics including HIV/STIs; HIV/STI testing and treatment; condoms and other birth control methods; and sexual communication and sexual relationships (see Tables 1 and 2). No sexually inexperienced youth mentioned general HIV/STI information and, not surprisingly, only one youth in our sample mentioned HIV/STI treatment. In contrast, sexually experienced respondents mentioned sexual communication and relationships frequently. Furthermore, sexually experienced males often cited condoms as a primary topic of focus for Internet searches.

We also found that sexual health information was sometimes sought deliberately, often to fulfill school assignments. Active seeking of information online was also observed when youth had pressing personal questions about sexual health issues. Other teens reported incidental information acquisition; for example, in the form of advertisements on SNS. Finally, in addition to those who used the Internet for sexual health information, a number of teens indicated that they *could* find sexual health information online, but that they personally had not searched for it.

Discussion

We found that youth in our study had universal experience with the Internet, and just under half had found sexual health information online. Notably, only a small minority of youth reported deliberately *seeking* information on sexual health topics online. Of these, many had done so to fulfill a school-related sex education assignment. Digital media has the potential to play an increasingly important role in the dissemination of accurate sexual health information (Jones & Biddlecom, 2011), but our results indicate that teens often found such information only under the direction of teachers. Increasing familiarity with teen-friendly sexual health sites (e.g., sexetc.org; bedsider.org) could accelerate independent use of such sources and, in doing so, extend the effectiveness of formal sex education. This could be achieved by emphasizing Internet sources in school-based programs, in clinic settings that serve youth (e.g. Howard et al., 2011), or through mass media campaigns (Davis et al., 2011). Such approaches may be particularly useful for introducing youth who have not yet had sex to available resources, since they may be less likely than experienced teens to explore sexual topics online.

Most of the teens reported frequent use of SNS and some reported being exposed to advertisements (e.g., birth control, HIV/STI testing) on Facebook or MySpace. SNS have

the potential to reach large numbers of at-risk youth and HIV/STI interventions delivered through SNS show promise (Jones et al., 2014). However, because these sites are largely used for social connection, youth may not be receptive to health promotion messages whether in the form of ads or links to youth friendly services (Ralph, Berglas, Schwartz, & Brindis, 2011). Further work is needed to understand what motivates youth to respond to health information or promotion through SNS.

Some teens were aware that information on sex was available on the Internet, but had not used the Internet for this purpose. Recent studies indicate that youth are wary of sexual health information found on the Internet (Jones & Biddlecom, 2011; Ralph et al., 2011; Veinot, Campbell, Kruger, & Grodzinski, 2013), and mistrust may reduce willingness to use this resource. Mass media campaigns targeting adults from similar communities, have led to increased information seeking through education and identification of legitimate sources of information (i.e., online) (Davis et al., 2011); it may be fruitful to explore this approach to increase information seeking among youth.

Our findings suggest a number of pathways through which youth encounter sexual health information online, including directed education (e.g., class assignment), self-directed searches to answer personal questions (e.g., Do I have an STD?), and incidental information acquisition (e.g., ads on SNS). For conceptual or theoretical purposes, these may be interpreted to be reflective of motivations characterized as: (1) externally motivated, (2) problem solving, and (3) general curiosity or novelty. And, data further suggest a number of testable hypotheses. The first hypothesis is that formal educational programs can increase sexual health information seeking online. The second is that increasing awareness of legitimate sexual health information sites provides a basis for sexual health seeking in times of crisis. Third, that increasing the number of commonly used sites (e.g., SNS) with 'access portals' to sexual health sites may increase awareness of sites and eventual use of those sites by youth. Finally, the data lead to a hypothesis that the most effective way to reach large numbers of youth may be through multiple pathways.

The current findings are based on an opportunistic sample of urban youth recruited from organizations in low-income neighborhoods in two U.S. cities, and may not generalize other communities or geographic locales. The present study is limited by our reliance on self-report. It is possible that sexual behavior may be misreported, however, self-reports have been shown to be reliable within the limits of recall (Catania, Gibson, Chitwood, & Coates, 1990; Forman & Linney, 1991). Finally, we do not have data on the specific technologies youth use to access the Internet (e.g., smart phone, computer), and such information would be useful for targeting health promotion efforts.

The present findings should be confirmed in future studies and research focusing on identifying factors that impact Internet use for sexual health in this population (e.g., access, privacy, acceptability of sources) is also a critical area for exploration. Research should also aim to refine our conceptual understanding of the various pathways through which youth can be reached with online sexual health information and developing health promotion approaches that capitalize on those pathways. Ongoing conceptual and empirical work in

health informatics can inform this process (Veinot, Meadowbrooke, et al., 2013; Williamson, 1998).

Implications and Conclusions

Our study suggests that universal use of the Internet has not led to widespread use of digital media for sexual health information among urban African American youth residing in low-income neighborhoods. The Internet continues to be an underutilized resource, but our findings may reflect multiple pathways through which youth can be reached with sexual health information online. We identify several testable hypotheses, which can be explored in larger quantitative studies and which will enhance our ability to develop effective strategies to reach youth with legitimate sexual health information online.

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References

- Catania JA, Gibson DR, Chitwood DD, Coates TJ. Methodological problems in aids behavioral research: Influences on measurement error and participation bias in studies of sexual behavior. *Psychological Bulletin*. 1990; 108(3):339. [PubMed: 2270232]
- Davis KC, Uhrig J, Rupert D, Frazee J, Goetz J, Slater M. Effectiveness of a mass media campaign in promoting HIV testing information seeking among african american women. *Journal of Health Communication*. 2011; 16(9):1024–1039.10.1080/10810730.2011.571342 [PubMed: 21707409]
- Erdelez, S. Information encountering. In: Fisher, KE.; Erdelez, S.; McKechnie, EF., editors. *Theories of information behavior: A researcher's guide*. Medford, NJ: Information Today; 2005. p. 179-184.
- Forman SG, Linney JA. Increasing the validity of self-report data in effectiveness trials. *Drug abuse prevention intervention research: Methodological issues Maryland: NIDA*. 1991; 107:235–247.
- Gilliam M, Brindis C. Virtual sex ed: Youth, race, sex, and new media. *Sexuality Research and Social Policy*. 2011; 8(1):1–4.10.1007/s13178-011-0036-3
- Howard MN, Davis JA, Mitchell ME. Improving low-income teen health behaviors with internet-linked clinic interventions. *Sexuality Research and Social Policy*. 2011; 8(1):50–57.10.1007/s13178-011-0037-2
- Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. *Qualitative Health Research*. 2005; 15(9):1277–1288. [PubMed: 16204405]
- Jones K, Eathington P, Baldwin K, Sipsma H. The impact of health education transmitted via social media or text messaging on adolescent and young adult risky sexual behavior: A systematic review of the literature. *Sexually Transmitted Diseases*. 2014; 41(7):413–9.10.1097/OLQ.000000000000146 [PubMed: 24922099]
- Jones RK, Biddlecom AE. Is the internet filling the sexual health information gap for teens? An exploratory study. *Journal of Health Communication*. 2011; 16(2):112–123.10.1080/1080730.2010.535112 [PubMed: 21207311]
- Jones, S.; Fox, S. *Generations online in 2009*. Pew Internet & American Life Project; Washington, DC: 2009.
- Lenhart A, Purcell K, Smith A, Zickuhr K. *Social media & mobile internet use among teens and young adults. Millennials*. Pew Internet & American Life Project. 2010

- Ralph LJ, Berglas NF, Schwartz SL, Brindis CD. Finding teens in their space: Using social networking sites to connect youth to sexual health services. *Sexuality Research and Social Policy*. 2011; 8(1): 38–49.10.1007/s13178-011-0043-4
- Rangel MC, Gavin L, Reed C, Fowler MG, Lee LM. Epidemiology of HIV and aids among adolescents and young adults in the United States. *Journal of Adolescent Health*. 2006; 39(2):156–163.10.1016/j.jadohealth.2006.02.011 [PubMed: 16857526]
- Saldaña, J. *The coding manual for qualitative researchers*. 2. California: Sage Publications Limited; 2013.
- Ulin, PR.; Robinson, ET.; Tolley, EE. *Qualitative methods in public health: A field guide for applied research*. Jossey-Bass; 2004.
- Veinot TC, Campbell TR, Kruger DJ, Grodzinski A. A question of trust: User-centered design requirements for an informatics intervention to promote the sexual health of african-american youth. *Journal of the American Medical Informatics Association*. 2013; 20(4):758–765.10.1136/amiajnl-2012-001361 [PubMed: 23512830]
- Veinot TC, Meadowbrooke CC, Loveluck J, Hickok A, Bauermeister JA. How“ community” matters for how people interact with information: Mixed methods study of young men who have sex with other men. *Journal of Medical Internet Research*. 2013; 15(2)10.2196/jmir.2370
- Williamson K. Discovered by chance: The role of incidental information acquisition in an ecological model of information use. *Library & Information Science Research*. 1998; 20(1):23–40.10.1016/S0740-8188(98)90004-4

Table 1

Sexual health information topics sought or found on the Internet by female African American teens, by sexual experience (N= 40)^a

Topic	Sexually Inexperienced (N=20) N (%)	Sexually Experienced (N=20) N (%)	Illustrative Quotes
General HIV/STI information	-	3 (15%)	I have to look there [the Internet] to research on STDs and stuff [for school]. (E)
HIV/STI testing	3 (15%)	4 (20%)	There's websites everywhere about, go get tested. You need to get tested, and stuff like this. They have numbers you can call to make appointments on the Internet; places near you that you can look up to go get tested. (E) They have little pop-ups saying come get tested for free, but I really don't pay them no attention. (E)
HIV/STI treatment	-	-	
Condoms	3 (15%)	3 (15%)	Just Google, like once I knew I was going to use condoms but still get hair bumps. You google, try to find out the difference between a hair bump and a bump from having an STD. (E)
Birth control methods other than condoms	3 (15%)	3 (15%)	You google it, and then you learn stuff about it...the different side effects for it. They say you get bigger, when you take Depo, you get really big, and then you get bigger than you would if you took the pills, but it's more convenient because you don't have to take it every day. (I) I'm not sure what actual brand it was, but I think it was a birth control patch. It's like, like if you're on MySpace, Pandora, some of this stuff comes up, so that's ok. (I)
Sexual communication/relationships	2 (10%)	6 (30%)	Like not to have sex right now. To wait, And not to let boys convince me, or like manipulate me to do stuff—to like do stuff I don't want to do, like to have sex or something. (I)

Note. Percentages do not add up to 100% because some topics were coded in more than one subcategory.

I=sexually inexperienced

E=sexually experienced

^a 49% of females found sexual health information online

Table 2

Sexual health information topics sought or found on the Internet by male African American teens, by sexual experience (N =40)^a

Topic	Sexually Inexperienced (N=10) N (%)	Sexually Experienced (N=31) N (%)	Illustrative Quotes
General HIV/STI information	-	5 (16%)	I looked up on the internet the different type of diseases like what can that lead to or what type of medicine you could take to prevent that... it was in my biology class. (E)
HIV/STI testing	1 (10%)	3 (10%)	It'd be like pop-ups that say it [where to get tested]. (E)
HIV/STI treatment	-	1 (3%)	
Condoms	1 (10%)	8 (26%)	Use a condom, that was pretty much it. (E)
Birth control methods other than condoms	2 (20%)	3 (10%)	We had projects that were assigned to everybody, like, say a student gets birth control pills, and a student gets another health topic, a different topic that's about sex. (E)
Sexual communication/relationships	3 (30%)	8 (26%)	It's in the date apps.... that tell you how to get a girl. It was line to use on the girl, a very stupid line. I never used it. (E)

Note. Percentages do not add up to 100% because some topics were coded in more than one subcategory.

I=sexually inexperienced

E=sexually experienced

^a 46% of males found sexual health information online