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MEDIA & COMMUNICATION STUDIES | RESEARCH ARTICLE

Examining attitudes, norms, and perceived control: Young African American males' views of social media as a mode for condom use education

Jade C. Burns[1]* and Denise Saint Arnault[2]

Abstract: Background: Gender-based data indicates that within-race STI rate disparities exist for young African Americans males, (YAAMs) ages 18 to 24. Social media may prove to be a valuable tool for delivering theory-driven messages about sexual health knowledge and behaviors, including condom usage, directly to YAAMs in promoting safer sex behaviors for this population.
Purpose: To examine the current attitudes, norms and perceived controls related to the influence of social media on condom use among YAAMs ages 18 to 21.
Methods: Nine group-depth interviews were held with 41 participants, mean age 19, *SD* +1.2, were conducted in metro Detroit to understand use of social media for condom use education, and health messages among YAAMs ages 18 to 21.
Results: Participants demonstrated positive attitudes about using social media for condom use education. Social media sites that were educational (n = 12) and engaging (n = 5) made it easy to seek out sexual health information related to condom use. Similarly, participants liked social media for condom use education if

ABOUT THE AUTHORS

Dr. Jade C. Burns' health service research focuses on innovative approaches using community-engaged research and technology (e.g., social media, mobile apps) to increase access to sexual health services for adolescents and young adults at community health centers. Dr. Burns' area of expertise in clinical practice as a pediatric nurse practitioner is adolescent health care, family planning, health promotion, and HIV/STI prevention. Her secondary area of interest is improving nursing practice and training programs in underserved areas.

Dr. Saint Arnault's research centers on gender, cultural, and social influences on mental health, trauma recovery, and help seeking. She develops and tests her Cultural Determinants of Help Seeking theory in research with women in the U.S., Ireland, Japan, Brazil, Italy and Portugal. Dr. Saint Arnault also focuses on the impact of gender-based trauma on mental health, functioning and quality of life. She is researching mind-body and culturally tailored interventions to promote mental and physical health for women from a variety of cultures.

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PUBLIC INTEREST STATEMENT

This paper examines the use of social media as a tool to promote sexual health education among young African American males. The findings here can help healthcare providers, the community and researchers understand social media preferences, how youth navigate these systems and better understand the role social media in adolescent and young adult healthcare.

the sites provided educational (n = 9) content and had creative advertisements. (n = 7). Top reasons to dislike social media as a mode for condom use education included negative comments (n = 6) displayed on the sites or if the site provided misinformation (n = 5) about the use of condoms.

Conclusion: The findings here can help healthcare providers, the community and researchers understand media preference, navigation, and better understand the role of social media in adolescent health care.

Subjects: Information & Communication Technology; ICT; Urban Studies; Nursing Research; Sexual and Reproductive Health; Community Health; Health Communication; Health Education andPromotion; Public Health Nursing

Keywords: adolescent; African American male; sexual behavior; social media; and condoms

1. Introduction

Despite promising gains in the overall availability and utilization of condoms among adolescents in the U.S., African American youth persistently demonstrate higher rates of risky sexual behaviors and sexually transmitted infections (STIs) than their racial and ethnic counterparts (Aral, Adimora, & Fenton, 2008; Hamilton & Morris, 2015; Harling, Subramanian, Bärnighausen, & Kawachi, 2013; U.S. Department of Health and Human Services, 2014). Gender-based data indicate that within-race STI rate disparities exist: Both adolescent and young adult African American males (YAAM) aged 18 to 24 exhibit greater STI rates than African American females (U.S. Department of Health and Human Services, 2014). The reasons for the elevated rates of STIs among African American adolescents are multilayered and complex; however, lower health literacy and education, as well as limited access to contraceptives and sexual health promotion resources, are often cited as key contributing factors (Aral et al., 2008; Harling et al., 2013; Owusu-Edusei, Chesson, Leichliter, Kent, & Aral, 2013; Shacham, Nelson, Schulte, Bloomfield, & Murphy, 2015).

Interventions addressing these sexual health disparities within this population have primarily focused on employing theory-based approaches targeting selected attitudes and behaviors. These interventions have concentrated on enhancing adolescents' knowledge of correct and effective use of contraceptives (e.g., how to put on a condom) and encouraging them to limit their sexual partners (Hemmige, McFadden, Cook, Tang, & Schneider, 2012; Markham et al., 2012; Morrison-Beedy et al., 2012; Sales, Brown, Diclemente, & Rose, 2012). Traditionally, preventive research on reducing sexual risk behaviors has been directed at adolescent girls and young women rather than males (Jemmott, Jemmott, & Fong, 1998; Saewyc, 2012; Smith, Guthrie, & Oakley, 2005). Accordingly, sexual behavior in adolescent and young adult males remains poorly understood (Saewyc, 2012; Smith et al., 2005).

An additional factor that has altered the sexual health research landscape is the widespread use of social media. Social media platforms are accessible via virtually any Internet-connected device. Research has identified that most adolescents, representing a broad range of socioeconomic backgrounds, use one or more forms of social media, and rates of usage among Black male adolescents appear to outpace those of their White and Latino counterparts (Lenhart, 2015).

With an increase in a variety of community tools, interest in social media as a sexual health information and educational platform has grown (Guse et al., 2012). This upsurge of interest has partly stemmed from the modality's capacity for near-instantaneous transmission and reception in a broadly accessible, engaging manner. Prior research has demonstrated that teens are receptive to using social media to learn about and discuss sexual health (Bull, Levine, Black, Schmiege, & Santelli, 2012; Guse et al., 2012; Jones, Eathington, Baldwin, & Sipsma, 2014). However, research on sexual health interventions through social media has not sufficiently assessed their implementation with YAAM (Jones et al., 2014). Social media may prove a valuable tool for delivering theory-driven messages about sexual health knowledge and behaviors, including condom usage. Although the theory of planned behavior (TPB) has been widely used in sexual health research (Glanz, Rimer, & Viswanath, 2015), limited research has explored the

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influence of social media on the attitudes, norms, and perceived control factors associated with condom usage among YAAMs.

The purpose of this study is to contribute to the understanding of YAAMs' experiences with social media as a source of information about condom use. It has been well-documented within the literature that media exposure to sexual content and other risk-related behaviors is associated with increased risk of engaging in risk-related behaviors, but few studies examine the needs and preferences of young African American males regarding social media (Stevens, Bleakley, Hennessy, Dunaev, & Gilliard-Matthews, 2018). Moreover, few studies have examined the potential for using social media as a source of health information about condom use specifically. Thus, the current study employs a qualitative design to explore this concept. This method can capture the valuable responses and personal reflections of YAAMs, allowing them to describe the phenomenon in their own words. Enhancing scientific knowledge on this topic will not only prove useful for YAAMs, but may also strengthen current theory, knowledge, research, and practice on the usefulness of social media in health disciplines (e.g., nursing, public health, and medicine), especially in sensitive areas such as safer-sex research.

1.1. Theory

The process of selecting a theory to guide the group-depth interview requires consideration of both the population and the problem under investigation (Staton, Black, Kaljee & Ricardo, 1993). The theory of planned behavior (TPB) will serve as a guiding framework for this study. The TPB has proven successful in predicting a wide range of health behaviors, such as health service utilization, substance abuse, HIV/STI prevention behaviors, and contraceptive use (Glanz et al., 2015). The best predictor of behavior is a person's intention, this theory posits (Ajzen & Fishbein, 1980, 2005). Looking at the salient beliefs of the population being studied, the TPB measures three constructs for determining the likelihood of engaging in a behavior: attitudes, norms, and perceived control (see Figure 1).

For this study, the TPB will provide valuable insight for exploring motivations among YAAMs to use social media as a source for health information around condom use. Moreover, it will provide a systematic method to identifying the issues that involve seeking out sexual health information among this population (Glanz et al., 2015). Using the constructs from the TPB will (1) serve to organize the thematic analysis results and (2) answer several questions. For example, what makes it easy or difficult to use social media for condom use education? Who approves or disapproves of this behavior? How motivated are YAAMs to comply with important people's opinions and participate in the behaviors they recommend (Ajzen & Fishbein, 1980, 2005).

Figure 1. Theory of planned behavior model (Ajzen, 2019). theory of planned behavior. Retrieved from http://people.umass.edu/aizen/tpb.diag.html.

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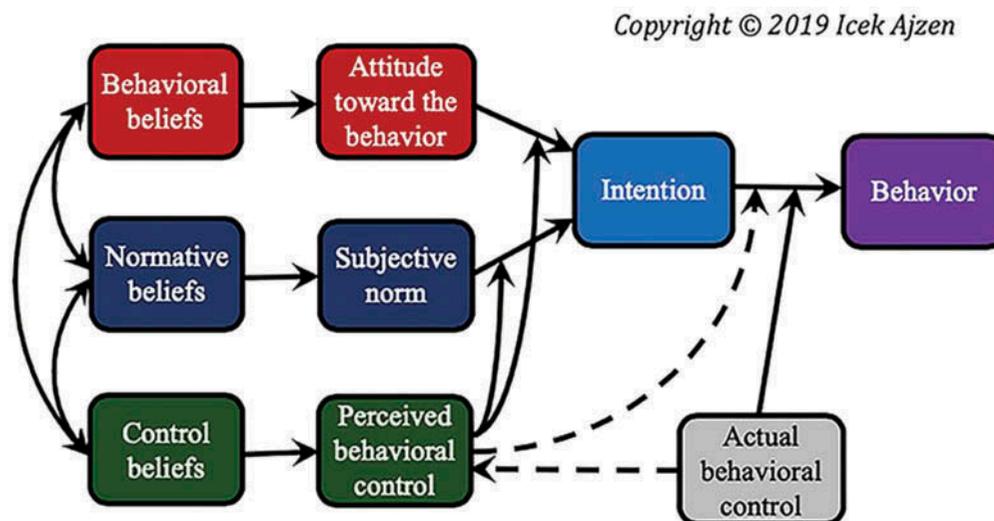
2. Methods

2.1. Participant recruitment

All study procedures were reviewed and approved by the appropriate institutional review boards at the University of Michigan and Detroit Community Health Connection. A total of 41 YAAMs living in metropolitan Detroit participated in nine group-depth interviews. Prospective participants were recruited between May 2015 and August 2015 through a nonprofit primary care clinic organization located in Detroit. A variety of recruitment methods were employed, including flyers, social media, face-to-face discussions, and snowball sampling. During the study, 81 initial text messages were sent via Google Voice to recruit people to participate in the study. To be eligible, individuals had to meet the following inclusion criteria: (1) be male; (2) be between ages 18 and 21; (3) live in metropolitan Detroit, and 4) identify as African American. All participants were given a waiver to sign and provided oral consent before the study commenced. Participants received $20 gift cards for completing the group-depth interview.

3. Measures

3.1. Demographic survey

YAAMs completed an online demographic survey in which they provided information including age, education, current zip code, employment status, relationship status, and current living situation.

3.2. The group-depth interview

The data reported here represent part of a larger project that used group-depth interviews to understand and describe the "who, what, where, why, and how" of social media use and preferences among YAAMs, as well as their condom use behaviors. The group-depth interview (GDI) is a type of focus group that has traditionally been used to determine consumers' perceptions about commercial products (Krueger & Casey, 2009). Often used for market research, it gathers insight on how to successfully market a product (e.g., a car). Consumers are asked to describe their opinions in different ways to aid in advertising the product successfully (Krueger & Casey, 2009).

With group-depth interviews, the facilitator can choose from 13 concrete steps to gain insight on various types of information from the group members (Goldman, 1962). The steps include: (1) building rapport, (2) initiating verbal activity, (3) keeping the discussion relevant, (4) asking projective questions, (5) using illustrative case methods, (6) using stereotypical photographs as a stimulus for response, (7) engaging in serial association, (8) asking deprivation questions, (9) using deception, (10) using gestures, (11) making non-directive comments, (12) employing sophisticated naiveté, and (13) evading direct questions (Goldman, 1962). This method offers the study a richer way of eliciting information (beyond the interpersonal level) than traditional focus groups (Goldman, 1962), while ensuring that every group participant has a chance to respond. Thus, whether the participants respond to direct questions from the interview guide or to activities that have been created through the elicitation steps, group-depth interviews can shed light on unconscious motives that typically would remain unnoticed with generalized focus group questions. For example, use of the deprivation technique can involve sorting a deck of cards or notecards to rank priority of topics. These activities allowed participants who had not spoken as much in the discussion phase or did not answer discussion questions to provide an answer in a different format.

During the study, each group-depth interview lasted approximately 1.5–2 hours. The facilitator was an African American male who was trained in group-depth interviewing procedures. All group interviews were audiotaped, and an additional research assistant attended the group sessions to take notes.

During the first phase of the protocol, the facilitator worked to structure the discussion, establish rapport, determine verbal activity, and keep the group conversation relevant. The facilitator also probed for clarification on statements made within the group (Goldman, 1962). A total of 7 of the 13 steps were used with each group. For this portion of the group-depth interview, the facilitator used 2 of the 13 steps to elicit information from the participants (see Table 1).

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Table 1. Group depth interview techniques		
Technique	**Method**	**Definition**
Verbal		
	Probing Without Leading	Facilitator will keep questions specific and simple, not forcing a response.
	Relevancy	Facilitator will keep the discussion within relevant limits. Facilitator must be very careful not to rule out that which is apparently unrelated, but may reveal relevant unconscious motives.
Goldman, 1962		

3.3. Interview guide

The interview guide was constructed using the theory of planned behavior. The use of content validity enabled a critical review of questions and content domains. Qualitative experts looked for ease of use and clarity of questions to ensure that each item adequately represented the appropriate theoretical construct. Three sections were created to assess attitudes, norms, and perceived control. The facilitator asked participants a total of 14 questions. If participants did not verbalize a response to a question, a corresponding activity designed using GDI methods was then initiated to elicit a response from the group. Examples of such activities included reviewing demographic survey results about social media use, providing rating scales, and using personification to present stereotypical memes and quotes about condom use. All interviews were recorded and transcribed to produce codes using the process of thematic analysis.

3.4. Thematic analysis

Thematic analysis (TA) aided in understanding the attitudes, norms, and perceived control related to the influence of social media on condom use. TA requires the researcher to "sense" or search for emerging themes that are essential to the description of the phenomenon at hand (Boyatzis, 1998; Fereday & Muir-Cochrane, 2006). During this process, research staff transcribed interviews manually and then uploaded them into ATLAS.ti 7. Open codes were then developed using a ground-up design that included rereading the transcripts and highlighting blocks of text, with each code containing no more than six words (Watkins, 2012). Next, using the ATLAS.ti code manager, 109 codes were developed with operational definitions. These codes were compared to ensure that they each represented distinct phenomena. During the initial coding phase and thereafter, qualitative experts reviewed the content validity of the codes for ease of use, clarity, and relevance to the theoretical constructs; feedback was provided; and any conflicting results or errors were reconciled (Alhojailan, 2012). Subthemes were then abstracted using pattern recognition and reduced to 16 themes. Overlapping subthemes were merged, and idiosyncratic subthemes were eliminated. Finally, subthemes were reduced to a single concept, grouped into themes, and then organized into thematic networks of the theoretical constructs of the TPB model. For example, maintaining audit trails and field notes ensured integrity and trustworthiness.

3.5. Results

Table 2 summarizes the demographic information on the study participants. A total of 41 participants with a mean age of 19.5 (SD + 1.2) and an age range of 18 to 21 were included in the analysis. The majority of the participants had acquired either a high school diploma (n = 15, 36.6%) or some college credit (n = 13, 31.7%). Slightly less than half reported having part-time employment (n = 18, 43.9%), 34.1% (n = 14) were unemployed, and 19.5% (n = 8) were students. Most respondents indicated that they were not currently in a relationship (n = 26, 63.4%). However, 68.3% (n = 28) of the respondents reported having had sex in the preceding six months, and 75.6% (n = 31) reported having used some method of protection.

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Table 2. Demographics and selected responses of study participants	
Characteristic	**# of Subjects (N = 41)**
Age, mean *(SD)*	19.5 ± 1.2
Education	
Some high School	11(26.8%)
H.S. Diploma	15 (36.6%)
GED	2 (4.9%)
Some college credit	13 (31.7%)
College	0
Employment	
A student	8 (19.5%)
Part-time	18 (43.9%)
Full-time	1 (2.4%)
Not Employed	14 (34.1%)
Social media site most used	
Facebook	14 (35.0%)
Instagram	17 (42.5%)
YouTube	1 (2.5%)
Twitter	3 (7.5%)
Snapchat	1 (2.5%)
Ask FM	1 (2.5%)
Kik	3 (7.5%)
Are you currently in a relationship?	
Yes	15 (36.6%)
No	26 (63.4%)
In the past 6 months, have you had any type of sex (vaginal, anal, or oral sex)?	
Yes	28 (68.3%)
No	13 (31.7%)
If you have had sex, do you always use a method to prevent sexually transmitted infections and pregnancy (condoms, barriers, other)?	
Yes	31 (75.6%)
No	10 (24.4%)

*Missing n = 1.

3.6. Attitudes

Participants were asked to discuss what they liked or disliked about using social media as a way to educate themselves about condom use, which was linked to the attitudes construct of the TPB, which encompasses likes, dislikes, benefits, and drawbacks (see Table 3). Several participants felt that social media could be used to educate youth about existing diseases and the consequences of unprotected sex. One participant said, "Like what Terry (alias) said, aside from getting the info out there, getting them better educated for their own safety and protection. It lessens African Americans becoming a statistic."

Respondents noted that social media is frequently used for advertising and proves very useful as a resource when targeting specific audiences with certain commercials (similar to how ads appear on TV). Respondents saw the use of pop-up ads as ideal because each ad appears for a minimum of six seconds, an efficient means of allowing viewers to decide whether they wish to continue watching or "skip" the ad. Several respondents in different group-depth interviews voiced similar

Table 3. Results for attitudinal factors	
Theme	
Likes	*Dislikes*
Educational n = 9	Negative Comments n = 6
Creative Advertisements n = 7	Being misinformed n = 5
Popular n = 5	Pop-up advertisements n = 4
Reach n = 5	Other: Information is uninteresting (n = 1), Internet too crowded (n = 2), hard to measure success unless people " like it" Feeling of space invaded (n = 1), people might ignore messages (n = 1)
Benefits	*Drawbacks*
Reach n = 9	Risky (referring to content and exposure for early adolescent youth) n = 3
Prevention (understanding the role of prevention against STIs) n = 5	

*n = number of participants who responded to the question, N = 41 total participants in the study.

responses, with one noting, "Even when you are posting things to educate people, there are still those other groups and individuals that may take it in another way." Another respondent commented,

> I think it's a very effective way, especially in our community and our culture of being an African American. The main thing that we use now is social media... . It's how a lot of people get their information; that's a valuable source they use besides going on Google and typing it up. You're actually getting the information right then and there.

Participants were also asked to identify what they disliked about social media being used as a form of education about condom use. Participants described the Internet, in general, as very crowded, arguing that measuring the success of social media interventions could therefore prove difficult unless people "like" the content on sites such as Facebook. Some respondents had mixed feelings about acquiring information about condom use via social media. One participant stated, "I use it, but what I dislike about it is that people may misinterpret the reason for the condoms on the Internet. They may get it and take it the wrong way because of their mindset." Another participated remarked,

> What I dislike the most is, it gets people with a lot of followers to say whatever, and a lot of people would follow whether it is right or wrong. So if rapper Future [a popular current rapper] tweeted that using condoms was not cool, a lot of African American males would look at him like, "It's Future," so, I mean, he has a lot of clout in the black community right now, so a lot of people would listen and follow without really researching like that.

3.7. Normative beliefs
When asked who would support or oppose their use of social media for sexual health education, one participant, identifying supporters, stated, "You guys [the research team], my coach, because he is always talking about it, and he always tells us to get checked up, but also my uncle too because he tells me to look stuff up." Potential "opposers" included "no one" and family members. Several of these opposers, described as "haters[1]," were mentioned on multiple occasions (n = 9) within each group. One participant stated, "The negative people, you feel me. Saying you a lame bro. But like I said, you got a kid and I don't, so. You got disease; I am straight, though. Like negative people, those are the people that are going to downgrade you. Haters." Other opposers included the church and those who do not use condoms. Table 4 indicates important individuals who support or oppose YAAMs' use of social media to seek out condom use information.

Table 4. Results for normative belief factors	
Theme	
Support	*Oppose*
Friends n = 12	No one n = 10
Family members (aunts and uncles) n = 12	Haters n = 9
Themselves n = 5	Family members (e.g., grandparents, mom, dad) n = 5
Research team n = 5	Church community n = 4
Professional athletes/Celebrities n = 4	Those who do not use condoms n = 3
Companies n = 1	
Significant other n = 1	

*n = number of participants who responded to the question, N = 41 total participants in the study.

3.8. Perceived control

Participants were asked to describe factors that would make it easy or difficult to obtain sexual health information through social media, as shown in Table 5. Examples of salient factors that respondents said would motivate or facilitate the use of social media as a form of sexual health education included: 1) the sites must offer information about preventive measures, and 2) the information must be accurate. Participants thought messages should state that they are intended for use as part of a broader set of information to be discussed in person with other YAAMs. Further, participants also expressed the view that using *memes* (humorous captioned images) to promote condom use, or having a famous individual or someone with status in the community endorse the messages online, would help capture YAAMs' attention.

In contrast, factors that would make it difficult for YAAMs to use social media platforms for education included putting information on sites that they have never heard of or rarely use, such as Pinterest, in comparison to sites that they visit more frequently, such as Twitter and YouTube (Krogstad, 2015; Smith, 2014; Smith & Anderson, 2018). Participants stated that putting information on sites where posts are frequent, or on sites that are crowded, would make it difficult for them to stay engaged. Additionally, participants indicated that they would not read the messages if they were too long or if the messages were posted on sites that did not promote privacy. While participants mentioned memes as a factor motivating use, YAAMs would not take the messages seriously if they were inappropriate, stereotypical, and/or lacked educational content. For example, one participant said,

> I think it really depends on what demographic you are trying to reach. So if it is younger black teens, so if it is, Twitter, IG [Instagram], or Snapchat would be better to reach people.

Table 5. Results for perceived control factors	
Theme	
Easy	*Difficult*
Sites: YouTube n = 13, Facebook n = 10, Twitter n = 10, Instagram n = 9	Social media sites
Educational n = 12	Putting information on sites, they have never heard of (e.g., Pinterest) n = 4
Engaging n = 5	Messages too long n = 2
Accessible n = 9	On sites that did not promote privacy n = 1
Message should clearly state intention (e.g., for group discussion) n = 1	Would not take memes seriously if it were: inappropriate n = 18 stereotypical n = 5 and lacked educational content n = 3
Memes n = 3	

*n = number of participants who responded to the question, N = 41 total participants in the study.

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> I think if you are trying to reach old people, or older than we are, then FB [Facebook]. I think they would see it better than we do. And getting a lot of people who have a lot of clout in the community, like rappers or players, to cosign, not necessarily talking to them but posting something out there or on their own website.

4. Discussion

The purpose of this study was to examine the attitudes, norms, and best practices related to the influence of social media on condom use among YAAMs of age 18 to 21. Moreover, few studies have examined the potential for using social media as a source of health information specifically about condom use. Since research on adolescent populations and social media remains in its infancy, the findings of this study may be among the first to capture the attitudes of YAAMs (Yonker, Zan, Scirica, Jethwani, & Kinane, 2015). The findings provided here explore the reasons why YAAMs like or dislike social media as a tool for condom use education and the benefits and drawbacks of using social media for sexual health information. These findings help to clarify the best ways to use social media for this purpose. The results of this study also help illuminate which individuals support or oppose YAAMs in seeking information about condom use on these platforms, which can help inform and garner support for interventions while mitigating resistance to this type of promotion of health information. While dealing with "haters" surfaced frequently in the discussion, participants also expressed ways of rising above negativity. To this end, they emphasized focusing on the benefits of using social media (e.g., free access to accurate information), silencing the haters, putting their partners' needs first, being a leader, and supporting themselves in regard to their own health. One participant stated, "I feel if I am going in the right direction … they [my friends] would tag along too." Their answers also illuminated factors that make it easy or difficult to use social media for condom use education, again contributing to the design of effective interventions.

The participants liked social media because they could use it for educational purposes. Moreover, participants felt positively about the potential of social media to provide accurate information about the prevention of sexually transmitted infections and the consequences that might arise if they were unprotected. Previous literature has suggested that adolescents and young adults are interested in receiving and obtaining health-related information via social media and other forms of technology on sensitive topics like sexual health (Wong, Merchant, & Moreno, 2014). Participants affirmed that social media platforms serve as places that provide information, such as news, facts, and other data. They believed that social media can successfully be used to inform those who navigate to sites featuring personal opinions and beliefs on controversial topics. This study also revealed that social media platforms are places where YAAMs absorb information daily. This information aligns with current research on Internet usage, which reports that 93% of teens and young adults from age 18 to 29 in the United States admit to visiting such sites daily (Lenhart, 2015).

The privacy or confidentiality of social media makes it easier for YAAMs to access information about condom use. Research indicates that social media provides the consumer with education in a judgment-free setting that is anonymous and uninterrupted (Wong et al., 2014). These characteristics of social media sites make it easier for youth to access information on stigmatized topics like mental health, sexual health, and risky behaviors, such as substance abuse (Wong et al., 2014). Using social media may address barriers to receiving sexual health information, improve access to care, enhance patient engagement and, with the help of future research, promote adherence to condom use (Fordis, Street, Volk, & Smith, 2011).

YAAMs in this study discussed how some of their dislikes of social media often give them difficulty in using social media as a place to seek out information. They perceived social media as being too "crowded," and as insufficiently private. These beliefs mirrored prior research on the use of social media to address other stigmatized topics. Adolescents prefer to access information anonymously (Yonker et al., 2015). Privacy and confidentiality remain a concern for youth,

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particularly when they are discussing risky health topics in unsecure formats (Yonker et al., 2015). It is critical for interventions to attend to this dimension of social media sites.

The limitations of this study include its small sample size (*n* = 41), because that restricts the generalizability of the findings to all young African American males interested in using social media for condom use education. Furthermore, the study could have more extensively explored differences or correlations among variables from the demographic survey. While group-depth interviews serve as a distinct qualitative method to elicit information from participants, this technique has been used widely in marketing research (e.g., advertising, business, new product development, and the automotive industry) but has not been commonly used in healthcare research (Goldman & McDonald, 1987). This study provides relevant and unique findings. However, using a mixed-methods approach—specifically, an exploratory sequential design involving both qualitative and quantitative information—may prove useful in designing a larger survey that may be disseminated via social media to YAAMs to extend this area of research beyond metropolitan Detroit. Moreover, employing a mixed methods study approach will allow the best of both worlds to (1) measure the phenomena (quantitative) and (2) explaining the why and how the phenomena occurs in its environment (qualitative) (Gutterman, 2017).

Several limitations of the TPB should be noted, such as the fact that the TPB does not account for environmental influences that may impact performing a behavior (LaMorte, 2018). It also assumes that individuals may have the resources in being successful in performing a behavior (LaMorte, 2018). Important aspects of the environments and lives of YAAMs may change, which could in turn influence their motivations. The individuals who influence them, known as *referent individuals*, and other supporting factors (e.g., job, neighborhood, friends, or life events) may change depending on their environment. As time goes by, the individuals in their lives may vary in importance in response to developmental and social trends, and people who may be against particular behaviors may become more influential over time. Changing referent individuals may influence individuals' chances of achieving or sustaining the intended behavior. The results presented in this study may fluctuate over time as life experiences occur among these individuals. Another point to consider is that very little research has applied this theory to contemporary forms of social media. Theory used in guiding interventions must incorporate up-to-date concepts as social media continues to advance. Thus, this study advances the application of the TPB and presents social media as potential tool and or resource that can used for sexual health education.

4.1. Implications
Although this study answered critical questions, the key takeaway is that as technology changes, we must prepare the healthcare community and researchers to understand the cultural values within the system that could help change inequities in care, particularly in YAAM populations. The results indicated that social media education might provide an opportunity for better engaging this population in caring for their health. However, challenges remain in understanding how the use of this mode of communication for sexual health information can aid in greater STI prevention success. Incorporating emancipatory knowledge into one's practice may help to identify influencing factors that could promote equal and favorable health outcomes in the care of underserved populations (Chinn & Kramer, 2008). Including not only empirics, but also data grounded in lived experiences within the community, is essential (Minkler & Wallerstein, 2011). The findings discussed herein provide methods by which healthcare providers can educate and interact with youth, including YAAMs, "where they are at," using a platform that youth have consistent access to and are generally comfortable using.

5. Conclusion
Social media serves as a valuable tool for delivering theory-driven messaging directly to YAAMs on sexual health knowledge and behaviors, and on condom usage in particular. Given that adolescents and young adults have been turning to social media with increasing frequency for various reasons—including to obtain advice, socialize, and access various types of information—social

media presents an opportunity to target these populations with accurate sexual-health-related information (Yonker et al., 2015). Adolescents continue to use social media for connection and sharing of information, similar to "hangouts" and other places where youth have been engaging with one another for decades (Boyd, 2014). Healthcare providers, researchers, and the community need to become more aware of the information being pushed through these channels and how this population feels about being presented with health-related information. As a result, other relevant issues, such as privacy, peer pressure, and risky behavior may be more easily addressed.

Challenges remain in understanding how using this mode of communication for sexual health information can better aid in STI prevention. Future research could strategically design novel interventions to measure these potential outcomes (Wong et al., 2014)—for example, posting this information during peak times for social media use. Future interventions should ask youth directly which elements should be included in the development of an effective online platform.

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Citation information
Cite this article as: Examining attitudes, norms, and perceived control: Young African American males' views of social media as a mode for condom use education, Jade C. Burns & Denise Saint Arnault, *Cogent Social Sciences* (2019), 5: 1588840.

Note
1. *Hater* is a cultural idiom that refers to person who disapproves of an act of another person. The Urban Dictionary describes a hater as a person who simply cannot be happy for another person's success. Rather than be happy, a hater makes a point of exposing a flaw in that person. Hating, the result of being a hater, is not exactly envy. The hater doesn't really want to be the person he or she hates; rather, the hater wants to knock someone else down a notch (Urban Dictionary, 2005).

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