

Social Media Recruitment for Adolescent Sexual Minority Males and Transgender Youth

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Abstract

Recruiting and surveying lesbian, gay, bisexual, transgender, and questioning (LGBTQ) youth pose many challenges for researchers. Lack of disclosure to others and a still developing sexual identity create additional barriers to reaching youth. This paper discusses the feasibility of conducting a web survey using recruitment advertisements on social media platforms targeting adolescent sexual minority males age 13 to 18 years old and transgender youth age 13 to 24 years old for a survey of HIV prevention preferences. Respondents were recruited as part of the Survey of Today's Adolescent Relationships and Transitions (START), a study that collects information about fundamental aspects of sexual identity, behavior, protective factors, and knowledge about and attitudes toward HIV prevention strategies. In order to capture youth who may be questioning their sexual identity as well as youth who identify as gay, bisexual, and transgender, recruitment ads were designed to attract both LGBTQ youth and youth more generally. Advertisements were designed for three social media sites – Facebook, Snapchat, and Instagram, in addition to using Google Ad Words. Multiple sites were targeted to access a range of ages as well as ample representation of Black and Latino youth who are at especially high risk for HIV infection. Recruitment advertisements were designed in static pictures and video/audio formats tailored to the social media platforms based on the usage and preferences of youth. We discuss the final advertisements selected for each targeted group and those which performed the best in recruiting this hard-to-reach population. We then outline the challenges and lessons learned for recruiting on social media sites in order to contribute to a better understanding of the use of social media sites for survey recruitment as well as targeted ads for survey recruitment.

Key Words: LGBTQ, Social Media, Survey Recruitment, Web Surveys, Youth

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1. Introduction

The Survey of Today's Adolescent Relationships and Transitions (START) was conducted by NORC at the University of Chicago (NORC) in partnership with the study's sponsor, the Centers for Disease Control and Prevention's (CDC) Division of Adolescent and School Health (DASH). START was developed in response to the high rates of new HIV infection among young males who have sex with males (MSM), especially young MSM of color, and transgender adolescents. The DASH team recognized the need for information about this population to inform effective early intervention and prevention efforts preceding infection. Given the difficulties of sampling this hard-to-reach population and limited resources, it was decided to use social-media-based recruitment for a web-based survey. This paper discusses our experiences with, and the feasibility of, conducting a web survey using recruitment advertisements on social media platforms targeting adolescent sexual minority males age 13 to 18 years old and transgender youth age 13 to 24 years old for a survey of HIV prevention preferences. An effort was made to insure an ample representation of Black and Latino youth as they are at especially high risk of new HIV infection.

In addition to NORC and DASH, the START team included subject matter experts from The Fenway Institute (Fenway) in Boston, MA. Fenway's role involved creating a Youth Community Advisory Board (YCAB) and conducting focus groups with teens and health care providers with the key outcome being tool development. The YCAB consisted of members who were representative of the targeted population and met on a monthly basis to discuss various topics related to the study. The YCAB provided feedback on the questions and overall content covered in the survey as well as ad development. The project also involved a research advisory panel consisting of experts in the field of LGBTQ and social media research. NORC, DASH, and Fenway met with the research advisors on a quarterly basis to gather their feedback regarding the survey, ad development, social media campaign development, and other topics relevant to the project.

In the remainder of this paper, we outline the social media recruitment strategy used and its effectiveness at recruiting adolescent sexual minority males and transgender youth. We address key issues encountered during data collection and solutions implemented, concluding with a brief discussion of our current understanding of the use of social media for recruitment and future implications for its use in survey research. The data presented in this paper are from the initial stages of data collection. The full data set will not be discussed as data collection was still in progress at the time of AAPOR 2018.

2. Description of the START Study

2.1 Purpose

The goals of the START study are twofold: (1) to assess knowledge, attitudes, and behaviors related to HIV prevention among young gay, bisexual, and questioning young males and transgender individuals, and (2) to assess the effectiveness and efficiency of social media recruitment for this hard-to-reach population. This paper will specifically address the latter and discuss the methodologic lessons learned in reaching this population.

To address both goals of the study, we developed and fielded a survey about fundamental aspects of sexual identity, behavior, protective factors, and knowledge about and attitudes toward HIV prevention strategies. Recruitment efforts aimed to produce a diverse national nonprobability sample of adolescent males who have sex with (or are attracted to) males (MSM) and transgender adolescents including an over-representation of youth of color (Black and Latino).

2.2 OMB/IRB Approvals

An OMB request was submitted under Generic Information Collection Request (ICR) number 0920-0840. We received OMB approval on December 12, 2017. We also received approval for CDC's Reliance request to use NORC IRB approval certificate rather than full board review by CDC's IRB. The initial IRB package was approved on March 29, 2016, with an amendment for full data collection approved on January 9, 2017.

We requested and obtained a Waiver of Documentation of Consent for minors given that the survey was anonymous. Seeking parental consent would require sexual and gender minority youth who are not out to their parents/guardians to inform them of the study which could influence study results (Mustanski 2011). When answering questions in front of a parent, teens may also be more reluctant to share sensitive information (Buskirk, Joseph, & Nyland 2002; Johnston & O'Mally 1985). Respondents completing the survey online gave their assent/consent by clicking 'Continue' after reading a written statement on the survey welcome screen regarding their rights as a participant. Identifiable information, including names, were not collected from participants in the survey. The survey asked sensitive questions about sexual health and risk behaviors; for respondent privacy and confidentiality, names were not associated with the results. At the end of the survey, respondents could provide their email and/or phone numbers to receive the \$10 Amazon gift code incentive; however, they were given the gift code on the final screen regardless of whether they gave their emails and phone numbers. If they elected to provide this information, it was stored separately from the survey data.

2.3 Survey Development

The START survey was developed to address a specific list of research questions. The development process consisted of a thorough review of high-quality surveys for key question domains; compiling a report listing and comparing potential questionnaire items of relevance to this project from existing surveys; developing new questions; and modifying existing questions. The final questionnaire covered the following topics:

- Sexual and gender identity, behavior, and attraction
- Access to sex education and other HIV prevention activities in school and community settings
- Health care for transgender individuals
- Communication about gender identity
- Knowledge, attitudes, beliefs, and behaviors related to pre-exposure prophylaxis (PrEP), non-occupational post-exposure prophylaxis (nPEP), and rectal microbicides
- Parental knowledge and involvement
- Substance use

3. Recruitment Ad Development

Social media users are not representative or inclusive of the general population, and not all social media sites reach the same population (Solomon 2001). Social media site usage is also constantly changing. We quickly recognized the importance of identifying where our targeted population was most active online. For that reason, during the initial planning phases for the START survey, we consulted with a third-party social media expert, Socially Authentic, to gather information on social media site usage and advertisement strategies. Socially Authentic evaluated emerging trends related to adolescent use of social media, specifically among theGBTQ and racial minority populations. The initial plan was to only post static image ads, but we expanded to include video ads as these are required for Snapchat and can be very effective on Facebook and Instagram. Additional research and feedback from the YCAB and research advisors strongly supported the use of video ads.

3.1 Ad Source

Static images and audio and video files were purchased from online image purchasing sites such as iStock, Getty Images, and Shutterstock. The music accompanying the video ads was purchased separately from the video itself and compiled with the help of an independent contractor who also added text on the video ads. Video and static ads were posted to Facebook and Instagram, and only video ads were posted to Snapchat, as this application does not allow static image ads. A text-only ad was used for Google AdWords.

3.2 Ad Targeting

The ads were designed to reach a specified audience in order to increase the likelihood of them clicking on the ads and participating in the survey. Ads were designed to specifically appeal to one of three groups – MSM, transgender, and the general teen population. The general teen population was included to help recruit younger teens who may not have established their gender identity or sexual orientation who might be eligible for the survey. In addition, ads were designed to be inclusive of and appealing to Black and Latino adolescents. Facebook, Instagram, and Snapchat were selected based on their popularity to our targeted groups in terms of age and race.

We designed an experiment to test the effect of eligibility language posted on ads. Within each target group, some ads contained text on eligibility, and others did not. A single video or static image ad could be posted under multiple campaigns, some with eligibility language and others without. Figure 1 shows how a single ad can be posted under multiple platforms, campaigns, and with or without eligibility text.

3.3 Incentives

A \$10 Amazon gift code was offered to respondents upon completing the survey. Prior to getting the code, respondents are asked if they would like to receive the code. If yes, they are asked if they would like the code to be emailed or texted to them. Respondents received the code on the screen regardless of whether they elected to have it emailed or texted.

4. START Methodology

4.1 Survey Administration

Data collection was conducted in phases. Each phase represents a period of time when the ads were live. After each phase we stopped the ads and reviewed the data. Updates were made as necessary based on our findings. Table 1 presents the data collection schedule. Phases 1 and 2 make up the pilot test while Phases 3 and 4 make up the full study. Although Google was included to expand the scope of our targeting to include those who may not be active on social media or may fear clicking on ads that promote MSM or transgender material on a social media site, it was dropped after the pilot because of poor performance. We received zero completes from Google and only 84 ad clicks. Snapchat was not posted during Phase 2 because we hit our targeted number of completes through Facebook and Instagram prior to the outside vendor posting our ads on Snapchat.

Ads were posted to each social media site with text asking respondents to click the ad to participate. After clicking the ad, respondents were taken to the survey welcome screen informing them that participation is voluntary, that they can skip any questions they do not want to answer, an estimated time to complete the survey, and the incentive type and amount offered upon completion. By clicking submit, respondents would start the screener. The screener consisted of a series of up to thirteen questions, a subset of which determined eligibility for the survey. After three phases of data collection, the final number of completed surveys consisted of 934 MSM and 570 transgender individuals.

5. Challenges and Solutions

5.1 Survey Revisions

Throughout data collection, data quality and ad performance were thoroughly reviewed to identify any programming errors in the web survey, poor performing ads, or security concerns. Revisions were made after each phase of data collection as needed and are discussed briefly below.

5.1.1 *Invalid Responses*

After Phase 1, we noticed that there were cases in which some respondents completed the survey but answered Don't know or Prefer not to answer for at least half of the questions in the survey. The survey was updated so that respondents answering the first five questions after the screener as Don't know or Prefer not to answer were redirected to the ineligibility screen. The first five questions were selected because they were straightforward and did not ask for sensitive information; therefore, we would expect respondents to know the answer to at least one of these questions.

5.1.2 *RelevantID*

In addition to the concerns over non-substantive responses, there were concerns raised about possible re-entry by respondents in order to receive additional incentives. Google ReCAPTCHA was already in place to ameliorate this issue. ReCAPTCHA is free software that asks users to click a checkbox to confirm they are not a robot. It may also require users to select a series of images (e.g., Select all images of a bus). After Phase 1, we also employed RelevantID to enhance our security capabilities. RelevantID is a digital fingerprint software that gathers a large number of data points from a respondent's computer such as operating system version, browser version, plug-in, etc. Upon first entering the survey, a respondent should receive a score close to zero. If the respondent tries to complete the survey again on the same device, they should get a score close to

100. We started with a cut off score of 90 which meant anyone getting a score of 90 or higher would be sent to the ineligibility screen because they were likely a duplicate. After Phase 2, we reviewed the RelevantID score spread and found a bimodal distribution (mostly between 0-2 or 95-100) indicating the system was clearly identifying potential duplicate respondents. The cut-off score was then lowered to 75 making it even more difficult for potential duplicates to get through the survey.

5.1.3 Ad Sharing

With the ads shut down after Phase 1, it was evident the ads were being shared among social media users. We did not want new users to complete the survey while we were reviewing data quality from Phase 1. In response, the open survey link was shut down when targets were reached after each subsequent phase to prevent new cases from accessing the survey if the link was shared.

5.1.4 Daily Gift Code Cap

A daily gift code cap was set to control the speed and length of data collection. Once the daily cap was met, no additional completes were permitted. Respondents would receive a message informing them that the cap was met and if they followed the link provided, they could return the next day to complete the survey. This allowed us time to closely monitor the data. At the start of data collection, the daily cap was 50 and was increased during subsequent stages of data collection. The daily gift code cap reset each day at midnight Central time. The cap was met between midnight and 4am on most days. The offset time was changed during the later stages of data collection from midnight to 3pm. The gift code cap would then reset each day at 3pm, around the time that most students are getting out of school.

6. Results

6.1 Questionnaire Results

Ads were live for approximately 8 days cumulatively for Phases 1-3. Our initial analysis focused on the performance of each social media site in recruiting our targeted populations. The data in Table 2 show that although Snapchat was most successful at recruiting teens, these teens were not as likely to complete the full survey. Only 18% of respondents who accessed the survey by clicking on a Snapchat ad completed the survey. Respondents who accessed the survey via Facebook were most likely to complete the survey (74%) followed by Instagram (57%). Google was excluded from this table because of the low numbers of ad clicks and zero completed cases. Figure 2 displays this finding by presenting a breakdown of the number of respondents who clicked an ad by each social media site, and of those, the number who completed the survey. Figure 3 shows the percentage of completes for each targeted group of interest and from what social media site they were recruited. For example, 12% of completed cases from Black respondents were recruited via Facebook and 13% of completed cases from transgender males were recruited via Snapchat. A total of 934 MSM and 570 transgender respondents completed the survey by the end of Phase 3. Figure 5 presents the number of completes for MSM and transgender by social media site. It should be noted that the eligibility age for transgender respondents was 13-24 compared to 13-18 for MSM. This could influence the results by social media site. For example, Instagram tends to have a younger age demographic compared with Facebook which could explain why Instagram was more successful at recruiting the younger 13-14 year old age group and Facebook was more successful at recruiting the transgender population.

6.2 Ad Performance

It is difficult to directly compare the ad performance among all ads that were posted as each social media site utilizes different algorithms for pushing ads out to its users. Also, the approval process for ads on Facebook and Instagram varies. If a single ad is posted under three campaigns on Facebook and/or Instagram, it may be approved under one campaign but not under the other two. Then the ad must be resubmitted until it is finally approved. This means ads were not posted for the same period of time. However, the ads that performed the best in terms of ad clicks and number of completes had significantly higher numbers than other ads, so we are confident saying these ads are effective at recruiting this population. The top five performing ads included three videos and two static image ads. Two of these ads were designed to target transgender respondents, with the other three designed to target MSM. A description of each top performing ad along with screen shot images are included in Figure 4.

We were also concerned with ad performance among Black and Latino respondents. As discussed, these groups are particularly affected by increasing rates of new HIV infection and therefore were specifically targeted with certain ad designs. We found that ads 1, 2, and 3 were also the best performing among these groups. Ironically, ad 2 was designed to target Black and Latino youth, but it was ad 1 featuring a white feminine adolescent that performed best among Black and Latino youth.

7. Conclusions

Our results indicate that Facebook, Instagram, and Snapchat performed very well in recruiting adolescent sexual minority males and transgender youth. Data collection was much quicker than anticipated. Respondents were sharing the ads on social media, and we received many positive comments both on the ads themselves and at the end of the survey, where a comment box was provided. Although we know these sites were successful at gaining the attention of youth based on the number of ad clicks, our focus should now be redirected to the survey itself, as we found that only 18% of Snapchat users went on to complete the survey. We need to investigate this further by looking into respondent demographics and break offs. Are younger respondents being recruited by Snapchat compared with Facebook and Instagram, and are these respondents most likely to break off or do other demographic factors play a role in the number of break offs? Google was not productive for this population. NORC has successfully conducted surveys before using Google, but the population recruited for these surveys were adults.

In terms of ad design, we found that although certain ads were designed to target Black and Latino respondents, these were not the only top performing ads based on the number of ad clicks and completes. It is difficult to predict the performance of any ad, but our results show that promoting a larger number of ads with diverse designs was an effective approach. We would recommend gathering feedback from these populations as one develops a diverse ad set. A limitation was our short field period, which limited our ability to evaluate ad performance over an extended period of time. In future studies we would like to experiment with posting different ads and switching them out for new ads based on performance.

Moving forward our primary concern is data quality. We want to further investigate the potential for respondents to click through the survey just to obtain a gift code and the use of fake email accounts to retrieve additional gift codes. Also, if respondents complete the survey on separate devices, then RelevantID will not be effective at preventing duplicate

respondents from accessing the survey. The potential for ad sharing poses a data quality concern. Although we expect that social media users will share our ads within each site, the potential for sharing URLs outside of the social media sites creates further unknowns about survey coverage and representativeness. Finally, with the recent Facebook data breach scandal, concerns have been raised about the use and privacy of user data. This may create new hurdles for researchers to recruit using social media with further delays and requirements for ad content. Also, if social media users delete their accounts or elect to enable additional privacy features, this may affect the representativeness of survey data based on social media site recruitment.

Our next step is to clean the data and do further analyses to more fully assess the effectiveness of this data collection effort. We want to identify which social media sites are reliable for recruiting MSM and transgender youth for future research studies and the potential means for improving the strategies used.

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Figure 1. Targeted Ad Recruitment

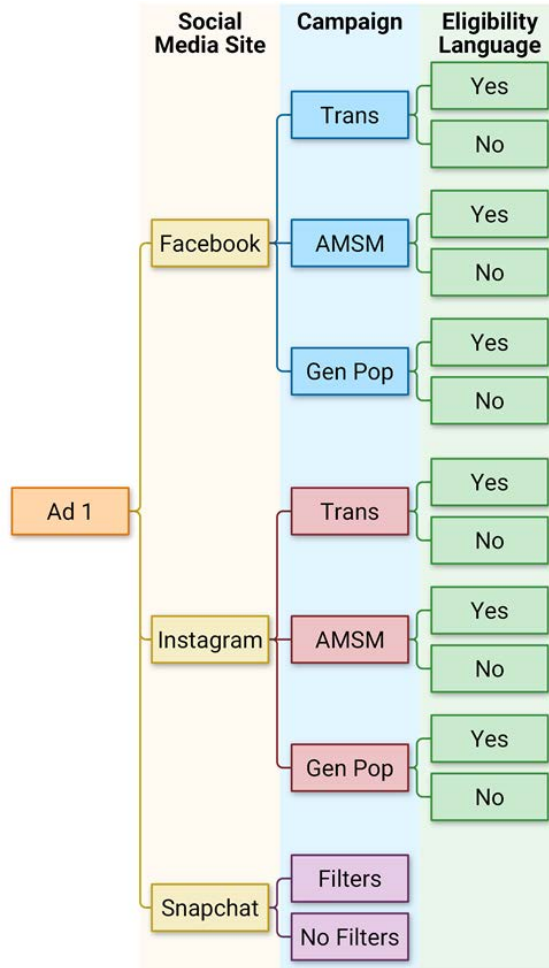


Figure 2. Number Started Survey vs. Completed Across Platforms

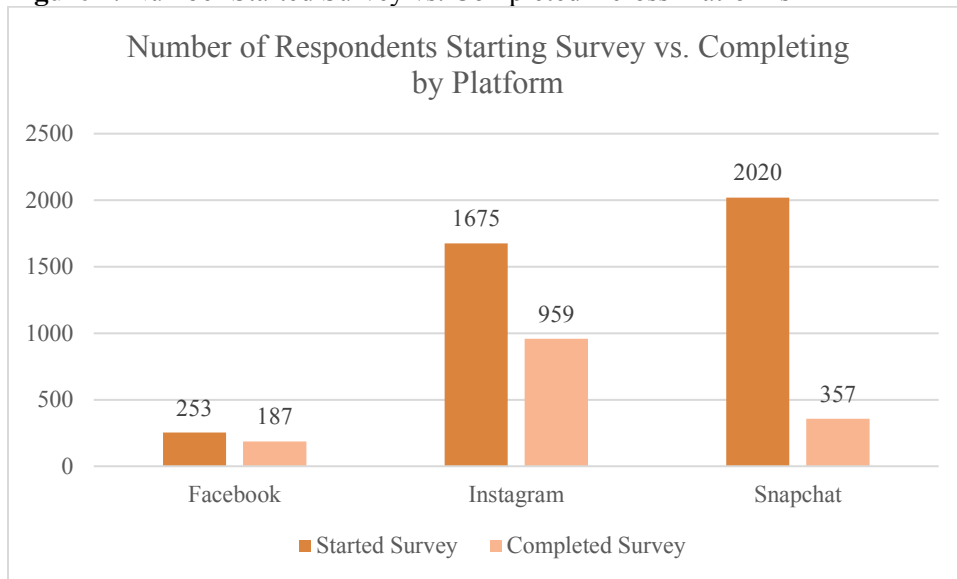


Table 1. START Data Collection Schedule

Phase	Launched	Closed	Sites
1	Friday, January 19, 2018 5pm	Saturday, January 20, 2018 12pm	Facebook, Instagram, Snapchat, Google
2	Friday, February 16, 2018 9:30am	Friday, February 16, 2018 1pm	Facebook, Instagram, Google
3	Monday, March 19, 2018 2pm	Monday, March 26, 2018 9am	Facebook, Instagram, Snapchat

*Includes Phases 1-3. Phase 4 was in production at time of AAPOR.

Table 2. Completion Percentage **within** Platforms

	<i>Total (N)</i>	<i>Facebook % (N)</i>	<i>Instagram % (N)</i>	<i>Snapchat % (N)</i>
<i>Started Screener</i>	3,952	100% (253)	100% (1,675)	100% (2,020)
<i>Partial Screener</i>	189	3% (7)	5% (5)	5% (97)
<i>Ineligible*</i>	1,532	16% (40)	17% (283)	60% (1,206)
<i>Screener Complete</i>	2,231	81% (206)	78% (1,307)	35% (717)
<i>Nonresponse Ineligible**</i>	146	0% (0)	3% (55)	5% (91)
<i>Partial survey complete</i>	536	7% (18)	17% (277)	12% (241)
<i>Complete</i>	1,504	74% (187)	57% (959)	18% (357)

*Ineligible based on screener criteria. Must be MSM or transgender. Those identified as “genderqueer” or “something else” in response to current gender were eligible.

**Respondents who selected Don’t know/Prefer not to answer for first 5 questions after the screener were ineligible for Phases 2-3.

Figure 3. Completes by Groups of Interest

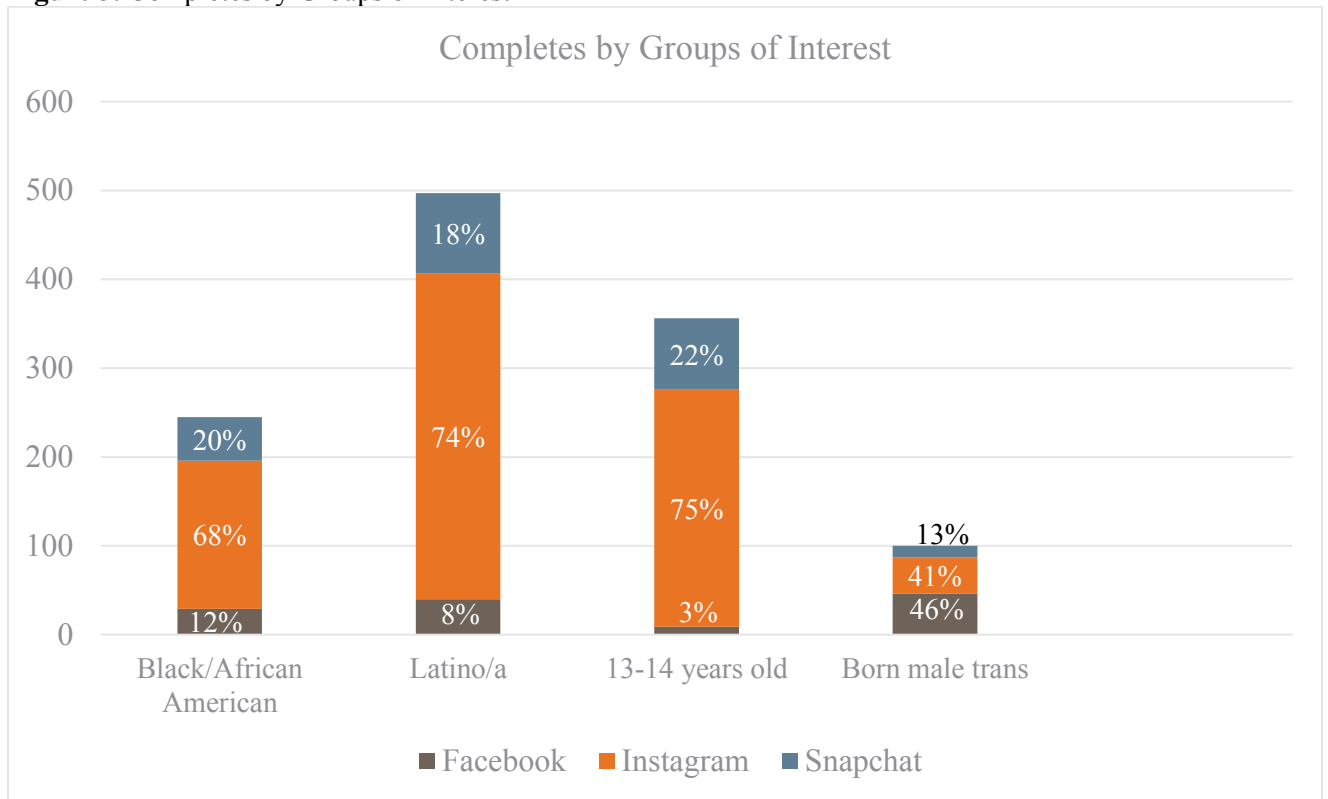
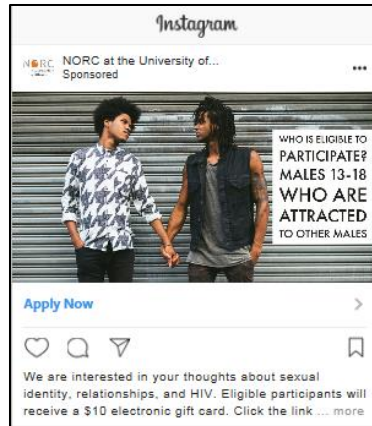


Figure 4a. Top Performing Ads (Based on Number of Completes)

Ad 1



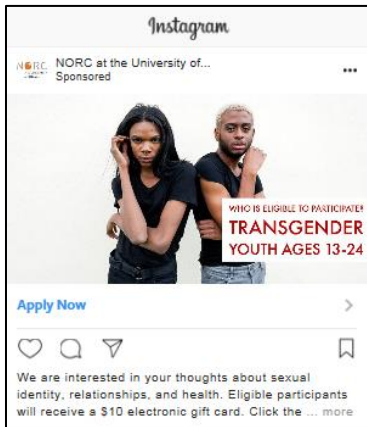
Ad 2



Ad 3



Ad 4



Ad 5



Figure 4b. Top Performing Ads (Ad Description)

- Ad 1
 - Video
 - Transgender target
 - Young, white feminine-presenting adolescent applying makeup
 - 317 completes
- Ad 2
 - Static image
 - MSM target
 - Two black males holding hands
 - 264 completes
- Ad 3
 - Video

- MSM target
- Pride parade
- 251 completes
- Ad 4
 - Static image
 - Transgender target
 - Two black transgender individuals
 - 241 completes
- Ad 5
 - Video
 - MSM target
 - Two white males holding hands
 - 137 completes

Figure 5. Completes by Groups of Interest

