The COVID-19 Pandemic and Sexual Behavior among Gay and Bisexual Men in the United States

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Abstract

After decades of navigating HIV and other sexually transmitted infections, gay and bisexual men are again responding to new and uncertain risks presented by the coronavirus (COVID-19) pandemic by adapting aspects of their sexual behavior. We fielded a survey of LGBTQ Americans' responses to the COVID-19 pandemic collected from April 10 to May 10, 2020, an important time period during which most states issued stay-at-home orders (April 10 to April 30) and also began implementing phased reopening (May 1 to May 10). In this paper, we limit analyses to a subsample of 728 gay and bisexual men and focus on changes to sexual behavior in response to the pandemic. We find that many gay and bisexual men made significant changes to their sexual behavior and partner selection. Nine out of 10 men in our sample reported having either one sexual partner or no sexual partner in the last 30 days, which, for many, was a substantial decrease compared to just before the pandemic. Men also made changes to the kinds of partners they had and their sexual activities with partners (e.g., more virtual sex), engaged in new strategies to reduce their risks of infection from partners, and expressed high levels of concern about how HIV may affect COVID-19 risk, treatment, and recovery. We expect these changes to be important not only for reducing the impact of the coronavirus pandemic, but also for reducing new sexually transmitted infections. Despite substantial changes in sexual behavior for most men in our sample, we note concerns around the sustainability of sexual behavior change over time and nondisclosure of COVID-19 symptoms to partners.

Keywords

coronavirus, sexual behavior, gay and bisexual men, men who have sex with men, United States

Introduction

On May 15, 2020, the Dutch government released guidance for single people to find a “sex buddy” and to avoid sex if a partner is sick (BBC News 2020). Lacking such guidance in the US, gay and bisexual Americans have been making their own way. In this study, we use data from a national survey of approximately 2,000 LGBTQ Americans collected from April 10 to May 10, 2020, to examine gay and bisexual men’s responses to the coronavirus (COVID-19) pandemic, especially in relation to sexual behavior and relationships.

We find that gay and bisexual men in the US have substantially changed their sexual behavior and partner selection in response to the epidemic. They have maintained these changes in behavior through mid-May despite several US states beginning phased reopening at this time. Since early April, most men have reduced the amount of sex they are having and the number of sexual partners. Increasingly, gay and bisexual men are having no sex at all. Among those who are having sex, we observe men adopting a variety of risk reduction behaviors, including asking partners about their own COVID-related risks and precautionary behaviors, avoiding certain kinds of partners or activities (e.g., casual partners, group sex parties), and using virtual sex platforms more. After decades of navigating HIV and other sexually transmitted infections, gay and bisexual men are again responding to new and uncertain risks by adapting aspects of their sexual behavior (Parsons et al. 2005). We expect these changes to be important not only for reducing the impact of the coronavirus pandemic, but also for reducing new sexually transmitted infections. Although such responses are reassuring in the short term, we question the sustainability of adaptations like not having sex at all and consider this an important area for follow up study as the pandemic continues to reshape our social and sexual lives.

LGBTQ Americans and COVID-19

A key motivation behind our study is the high likelihood that COVID-19 will unequally affect Americans. Indeed, it already has. In the first months of the pandemic, COVID-19 exacerbated inequalities across the United States and disproportionately affected those who were already economically and socially vulnerable. Researchers and practitioners alike are sounding the alarm about high rates of death and disproportionate risks and impacts faced by racial and ethnic minorities, low income communities, and children in low income households (Dooley, Bandedy, and Tschudy 2020; Owen, Carmona, and Pomeroy 2020; Wadhera et al. 2020; Yancy 2020).

Although very little attention has been paid to disparities by sexual orientation and gender identity (Cahill 2020; Johnson 2020), there are many reasons to expect that some LGBTQ Americans are at greater risk of severe disease if they are infected with COVID-19. Compared to the general population, gay and bisexual men have a higher burden of HIV, a disease that attacks the body's immune system (Blosnich et al. 2016; Operario et al. 2015). LGBTQ Americans also have higher rates of underlying health conditions that have been identified by the US Centers for Disease Control as key risk factors for COVID-19, including heart disease, obesity, and asthma (Blosnich et al. 2013, 2016; Fredriksen-Goldsen et al. 2014). LGBTQ Americans also are more likely to lack health insurance (Gonzales and Ehrenfeld 2018), report difficulty accessing and affording care (Skopec and Long 2015) and experience discrimination in healthcare (Clift and Kirby 2012; Sabin, Riskind, and Nosek 2015), making them less likely to seek care when they need it (IOM 2011; McClain, Hawkins, and Yehia 2016). Each of these durable and well documented inequalities increases the likelihood of negative individual and community-wide impacts on health and mortality for LGBTQ Americans.

Additionally, we are motivated to study the specific changes that gay and bisexual men are making in relation to their sexual and romantic relationships given that some communities within the LGBTQ population have different social norms around relationships and sexual contact patterns that may increase their risk of exposure. On average, gay and bisexual men report having a greater number of partners over their lifetime and are more likely to have concurrent sexual partners compared to heterosexual individuals (Glick et al. 2012). In addition, some gay and bisexual men meet sexual partners in less formal social venues, such as bars, gyms, parks, bathhouses, out of historical necessity to avoid violence, discrimination, and/or stigma as a marginalized population (Grov et al. 2013; Grov, Parsons, and Bimbi 2007; Pollock and Halkitis 2009). Increasingly, gay and bisexual men are using the Internet, including dating apps such as Grindr and Tinder, to find new partners and/or to seek sex (Grov et al. 2013; Liao, Millett, and Marks 2006).

Finally, we are just beginning to understand how certain sexual behaviors might differentially increase gay and bisexual men's risk of contracting or transmitting SARS-CoV-2, the virus from which COVID-19 develops, via contact with bodily fluids. Many of the contours of these risks, including differences in condomless sex among gay and bisexual men by location, age, race, identity, subculture, substance use, HIV status, and beliefs about HIV transmission, are familiar given the large body of research on the risk and prevention of HIV and other sexually transmitted infections among men who have sex with men (Eaton et al. 2007; Grov et al. 2013; Hunt et al. 2019; Liao et al. 2006; Pollock and Halkitis 2009; Prestage, Brown, et al. 2013; Surkan et al. 2017). One recent study indicates that SARS-CoV-2 can be detected in semen and may continue to be present when a patient is in recovery (Li et al. 2020). Other studies suggest that SARS-CoV-2 is also present in feces and persists even after the virus is no longer detected

using pharyngeal swabs (Chen et al. 2020; Kashi 2020; Zhang, Wang, and Xue 2020). The potential risk of infection that the long-term presence of SARS-CoV-2 in semen and fecal matter poses to gay and bisexual men who engage in condomless sex remains uncertain. However, common sexual behaviors among gay and bisexual men (Hunt et al. 2019; Prestage, Hurley, and Brown 2013), may put these populations at greater risk for SARS-CoV-2 transmission should the presence of the virus in these specimens prove infectious.

In sum, the current state of science as of this writing is suggestive of increased risks to gay and bisexual men who may be exposed to SARS-CoV-2 via multiple bodily fluids during sex. Differences in patterns of sexual partnering drive the need for further study of how gay and bisexual men are responding to the pandemic in their sexual and romantic relationships. We also note that durable inequalities in access to care, quality of care, care seeking, and financial coverage of care may limit care seeking among gay and bisexual men, thereby increasing the individual and community-wide impacts of severe disease on gay and bisexual men's lives and health.

Methods

From April 10 to May 10, 2020, 1,968 LGBTQ individuals completed an online survey, including 728 gay and bisexual men. We recruited participants using advertisements for LGBTQ adults aged 18 or older on two social media platforms, Facebook and Twitter, and on the hook-up app Grindr. Posts to social media sites were shareable to facilitate snowball sampling. We also invited members of an LGBTQ research panel maintained by The Henne Group, a research company that specializes in studies of LGBTQ populations, to participate in the study. The national sample reflects the characteristics of LGBTQ people broadly, with moderate overrepresentation among younger, married, and highly educated LGBTQ people relative to available

random samples (The Williams Institute 2020). The institutional review board at Vanderbilt University approved this study.

Measures

In our survey design, our primary goal was to create a short, anonymous instrument that could be easily and quickly completed on multiple platforms, especially a phone. The survey was programmed in REDCap and included items from the Stanford study of Americans' concerns about COVID-19 (Nelson, et al., 2020), symptoms and individual behavior change; measures of sexual behavior in the past 30 days; modifications of sexual behavior in the context of the pandemic; use of online sites and apps for finding new partners; and additional concerns about coronavirus targeted to LGBTQ people. The full instrument is available as online Appendix A.

Analyses

Below, we present descriptive information from the study in order to contextualize the changes gay and bisexual men are making vis-à-vis COVID-19. These data are novel and provide important insights into how this population is responding in real time to a new disease.

For several outcomes, we show how these behaviors have changed even in the short study period before and after May 1, 2020 (when states and cities began “reopening”). Our study sample uniquely straddles this important time period. Most US states had stay-at-home orders in place during the month of April (Kates, Michaud, and Tolbert 2020; KFF 2020). Starting at the end of April and into the first week of May, governors of several states began speaking about “reopening,” implementing phased reopening, and/or allowing existing shelter-in-place orders to expire (Mervosh, Sarah; Lee, Jasmine; Gamio, Lzaro; Popovich 2020; Treisman 2020). Below, we provide bivariate tests of significance over time, and the results of multivariate logistic

regression models estimating key outcomes, including having no sex in the last 30 days. In regression analyses, we use standard errors clustered at the regional level to account for variation across US Census regions in COVID-19 case counts and patterns in state-level restrictions.¹

Results

Table 1 presents demographic characteristics of the sample. The gay and bisexual men in the study reside in 47 US states, with substantial clusters in states with high or rapidly increasing numbers of COVID cases, including (1) California, (2) New York, (3) Florida, (4) Michigan, and (5) Illinois.

Experiences with COVID-19

Table 2 reports COVID-19 risks and behaviors among our study sample. Over the month-long survey period, about one in ten (11%) men report being sick with a flu-like illness in the past 30 days, among whom a majority (83%) report having a fever or cough. Gay and bisexual men report multiple direct risk factors for the virus that appear to be decreasing over time. From April 10 to April 30, 2020, just over a quarter (26%) of our sample reported being sick with a flu-like illness in the past 30 days, traveling internationally since February 1, having contact with someone they know to be positive for COVID-19, or receiving a positive test for COVID-19. From May 1 to May 10, 2020, just over 16% of men reported having any of these direct risk factors. This decrease is significant ($p < .01$).

Very few (6%) men reported receiving a test for COVID-19. Among those who reported being sick in the past 30 days, about 20% received a test. We do not observe any difference in the likelihood of receiving a test before and after May 1, 2020, despite increases in the

¹ We use region instead of state here because a small number of states have very few observations.

availability of testing in most states over this period. A majority (57%) reported being “extremely” or “very” concerned about COVID-19. More specifically, a substantial majority of participants reported feeling anxious (74%), worried (72%), or isolated (64%) while fewer reported feeling resilient (36%) or hopeful (33%) in the last 30 days. Men who live alone were significantly more likely to report feeling isolated compared to men who live with another adult in the household (70% versus 61%, $p<.05$).

Everyday Behavior Change

Participants universally (>96%) reported making changes to their everyday life because of COVID-19 (see Table 2), including staying home or sheltering-in-place (88%), more handwashing (89%) and avoiding social gatherings (91%). Men are increasingly wearing masks when they go out, with 78% reporting wearing masks prior to May 1 and 86% reporting wearing masks after May 1 ($p<.05$). More than half (53%) of respondents reported avoiding going to the doctor or dentist for routine care in response to the pandemic. One in four men (26%) reported caring for someone else (e.g., a family or community member) during the pandemic. About 1 in every 6 men (18.0%) reported that they live with at least one other adult who was not currently staying home or sheltering-in-place.

Sexual Behavior Change

We were particularly interested in changes gay and bisexual men undertook in their sexual and romantic lives to decrease COVID-19 transmission. The observed impact of COVID-19 on self-reported sexual behavior is substantial (see Table 3). In the first month of the COVID-19 pandemic in the US, more than half (59%) of the sample reported not having sex. For about half (47%) of these men, no sex was *less* sex than they were having before the pandemic (see Figure

1). Among men who did have sex, most reported having just one sexual partner (78%) in the last 30 days. Again, for many (26%), this was fewer partners than before the start of the pandemic. About 9% reported having more than one partner in the last 30 days. Many in this group (40%) also reported having fewer partners in the last 30 days compared to before the epidemic. Put another way, about 1 in 5 men report normally having more than one partner (18.7%), while just 1 in 10 (9.4%) report having more than one partner in the last 30 days between April 10 and May 10, 2020.

Relatedly, we observe changes in the frequency of masturbation. While just over one third (35%) of men reported masturbating more now compared with before the pandemic, 12% reported masturbating less now with several elaborating in open ended items that stress and anxiety decreased the amount of sex they could or wanted to have.

Consistent with decreases in sexual activity and the number of partners, most participants who used hook-up sites or apps (n=345) also reported using them less now (53%). Additionally, among those who ever met potential new partners from online or apps in person (n=278), 87% reported reducing the number of people they met in person and almost 33% reported using video or chat functions to have virtual sex with a partner in the last week.

In Table 4, we present the results of logistic regression analyses predicting the likelihood of not having sex in the past 30 days (Model 1). Controlling for respondent characteristics, we find that key COVID-related indicators predict men not having sex in the past 30 days. Specifically, men who completed their survey on or after May 1, 2020, who reported currently sheltering in place, and who live alone were more likely to have not had sex. The decline in sexual behavior before and after May 1, 2020 is substantial despite several states beginning their reopening by this date.

Navigating Risks with Partners

In addition to making changes to their sexual behavior, gay and bisexual men also engaged in a number of strategies to directly or indirectly reduce their risk of COVID-19 with sexual partners, including avoiding crowded places for finding new romantic or sexual partners, limiting the spaces where they hooked up with new romantic or sexual partners, and avoiding certain kinds of partners or events like group sex parties (see Table 3).

Participants also inquired about their partner's behaviors. They asked partners about symptoms (16%), asked if partners were taking precautions to avoid COVID-19 (16%), and asked partners if they were staying home (13%). Among those looking for a new partner, participants felt it was "extremely important" that potential partners be taking precautions when going out like washing their hands (69%), had sheltered in place for at least 14 days with no symptoms (47%), and were informing partners if they have had any symptoms like a fever or a cough (75%). Participants also thought it was important that potential partners tell them about other sexual activity (59%), including what precautions their partners' partners were taking (45%).

Despite widespread expectations that partners disclose symptoms, among those who reported being sick in the past month with symptoms consistent with COVID-19 (n=69), only 4 in 10 (39%) reported notifying a partner with whom the respondent had had significant contact (more than 15 minutes together, less than 6 feet away) that they had symptoms or had been diagnosed with COVID-19.

HIV and COVID-19

HIV introduces unique concerns about the COVID-19 pandemic for gay and bisexual men. HIV positive men are understandably the most concerned about the effects of HIV on COVID-19 risk, treatment and recovery. More than 80% of HIV positive men expressed these concerns. However, we note that these concerns are also prevalent among HIV negative men; 40% also reported concern about how HIV might affect COVID-19 risk, treatment, and recovery.

Without substantial information on how HIV may affect COVID-19 risks, symptoms, and outcomes, many HIV positive men adopted risk reduction strategies on their own (see Table 4). For example, HIV positive men were 2 times more likely to report avoiding group sex events or sex parties in response to the pandemic (Model 2) and 3 times more likely to report walking or driving to avoid using public transportation to meet a partner (Model 3) compared with HIV negative men in logistic regression analyses controlling for other individual and period effects on the adoption of these behaviors. HIV positive men were also about 50% more likely to ask sexual partners if they had symptoms of COVID-19 (Model 4). Concerningly, however, HIV positive men were also about 75% more likely to report that they were experiencing difficulties accessing healthcare because of the pandemic (Model 5).

Discussion and Implications

In this rapid assessment of gay and bisexual men's responses to COVID-19, many men are making substantial changes to their sexual behavior and partner selection. Nine out of 10 men in our sample report having either one sexual partner or no sexual partner in the last 30 days, which, for many, is a substantial decrease compared to just before the pandemic. Additionally, many participants report having virtual sex in the last week and that they are masturbating more. Among those who are seeking new sexual or romantic partners during the pandemic, many are taking steps to reduce their risk of transmission by asking about risk and prevention behaviors

and adopting high expectations of precautionary behavior among their potential partners. Gay and bisexual men's rapid adoption of changes to their sexual behavior has likely reduced new cases of COVID-19 at a key moment and, at the same time, contributed to decreases in other sexually transmitted infections.

Despite these promising changes, we also note several areas of concern. Increasingly, we observe that many men are simply not having sex right now or are only having sex with one partner when they would normally be having sex with more than one person. Although this will reduce coronavirus risk via exposure to new partners, it is unclear whether and how those who have simply stopped having sex will begin to incorporate new strategies when they decide to resume sexual activity. We already see evidence that some of the strategies that men have adopted are being used less frequently as states have begun to reopen.

Meanwhile, the percentage of men who have disclosed that they have had symptoms of COVID-19 to sexual partners is well below optimal at 40%. Given these trends and the ease with which COVID-19 is transmitted, there is room for targeted messaging around how to have conversations with partners about COVID-19 symptoms and how to better navigate risks based on the variety of strategies that other gay and bisexual men have already adopted. It is also possible that existing anonymous reporting strategies currently used in many states to assist with partner notification of sexually transmitted infections could be useful here and could relieve some of the contact tracing burden.

Finally, our results indicate a strong desire for more information about how HIV may affect aspects of COVID-19 transmission and treatment. Even though a small percentage of respondents are HIV-positive, a majority are concerned about the impact of COVID-19 among those close to them who are living with HIV. So far, information about how HIV may affect

COVID-19 risk, treatment, and recovery remains limited. Our study suggests that most in the community would welcome information on COVID-19 and HIV.

This study is not without limitation. Our national sample of LGBTQ Americans tracks well with other representative samples of LGBTQ Americans but may not fully represent gay and bisexual men or the diverse communities and identities within this subpopulation.

Additionally, we note that this is a snapshot limited to the first two months of public attention to the pandemic as it has unfolded in the United States. Nonetheless, we are already seeing dramatic changes. As we learned with HIV, those who are most at risk often respond dynamically to new threats by shifting their behavior when and how they can and by adapting new strategies to decrease risks to themselves and others, even if they cannot eliminate risk altogether (Parsons et al. 2005). Gay and bisexual men made substantial changes over the last four decades to how they have approached sex. Importantly, these changes were not always consistently implemented or sustainable over time. It will be important to see what new adaptive behaviors develop and how sustainable the changes we have observed here remain as the crisis continues over the next weeks and months.

Table 1. Descriptive Characteristics of Gay and Bisexual Men (N=728)

	N (%) / Mean (sd)	
Age (mean)	44.6	(16.3)
Race/ethnicity		
African American	52	(7.1)
Asian	24	(3.3)
Latino/Hispanic	81	(11.1)
White	545	(74.9)
Other	26	(3.6)
Education		
Less than college	234	(32.1)
College degree	234	(31.5)
Graduate or professional degree	261	(35.9)
Region		
Midwest	141	(19.6)
Northeast	126	(17.5)
South	239	(33.2)
West	214	(29.7)
Married	178	(24.5)
Partnered	216	(29.7)
Living alone	206	(28.3)

Table 2. COVID-19 Risks, Everyday Behaviors, and Difficulties, by Survey Date

	Overall (N=728) %	April 10-30, 2020 (N=353) %	May 1-10, 2020 (N=375) %	<i>p</i>
COVID-19 risk factors				
Any COVID-19 risk factor	25.8	25.8	16.3	<.01
Sick with a cold or flu-like illness, last 4 weeks	13.9	13.9	7.5	<.01
Currently staying at home (sheltering in place)	89.5	89.5	89.4	
Living with another adult who is not staying home ^a	18.0	15.9	19.9	
Everyday behavior change in response to COVID-19				
Avoiding social gatherings	90.7	91.8	89.6	
Washing hands more	89.0	91.2	86.9	<.1
Wearing mask	82.4	78.2	86.4	<.01
Working from home	53.2	57.5	49.1	<.05
Avoiding routine medical/dental care	52.8	52.1	53.3	
Assisting others in family/community	25.6	26.6	24.5	
Difficulties experienced due to COVID-19				
Accessing healthcare	18.8	17.0	20.5	
Getting routine/essential medications	10.2	8.8	11.5	

^a The denominator for this outcome is 701 due to missing data on household composition.

Table 3. Sexual Behavior Change and Risk Reduction Strategies in Response to COVID-19, by Survey Date

	Overall (n=728)	April 10-30, 2020 (n=353)	May 1-10, 2020 (n=375)	<i>p</i>
	%	%	%	
Sexual behavior change				
No sex in last 30 days	58.6	51.3	65.5	<.01
Had less sex compared to Feb/early March	43.8	45.8	41.2	
Had more than one sexual partner, last 30 days	9.2	13.1	5.6	<.001
Had fewer sexual partners compared to Feb/early March	39.3	42.5	36.3	
Masturbated more compared to Feb/early March	34.6	33.3	35.7	
Used website/apps to find new partners less compared to Feb/early March ^a	53.4	58.0	47.7	
Met partners met online/app in person less compared to Feb/early March ^b	87.4	87.6	87.4	
Used website/app for virtual sex in last week	33.0	37.2	28.0	<.1
Risk reduction strategies				
Stopped having sex with casual partners	14.0	17.8	10.4	<.01
Avoided crowded places where people go to find new partners	13.2	16.4	10.1	<.05
Only had sex with partners that I have had sex with before	12.2	14.2	10.4	
Avoided group sex events or sex parties	9.2	13.0	5.6	<.01
Only hooked up in my home	8.7	11.6	5.9	<.01
Walked or drove instead of taking public transportation to hook up with someone	5.6	7.6	3.7	<.05
Stopped having sex altogether	2.3	4.0	0.8	<.01
Only hooked up outside of my home	1.6	1.4	1.9	

^aLimited to men who ever use apps/online sites (N=345).

^bLimited to men who ever use apps/online sites and have ever met a potential partner from an app/online in person (N=278).

Table 4. Odds Ratios and 95% Confidence Intervals for Logistic Regression Models Predicting Key Behaviors and Outcomes

	1. No sex, last 30 days				2. Avoiding group sex events				3. Walked/drove to meet partner			
	OR	95% CI		<i>p</i>	OR	95% CI		<i>p</i>	OR	95% CI		<i>p</i>
Survey date on or after May 1, 2020	1.88	1.57	2.26	<.001	0.50	0.24	1.03	<.1	0.70	0.28	1.76	
Any COVID-19 risk factor	0.87	0.47	1.63		1.63	0.63	4.20		2.21	0.63	7.71	
Sheltering in place	1.97	1.08	3.58	<.05	0.62	0.22	1.79		2.96	0.96	9.20	<.1
Live alone	2.29	1.80	2.92	<.001	0.77	0.54	1.10		1.01	0.66	1.54	
HIV positive	1.06	0.75	1.51		1.93	1.23	3.03	<.01	2.99	1.07	8.39	<.05
Age												
18 to 29 (reference)												
30 to 44	0.46	0.25	0.87	<.05	0.85	0.45	1.61		0.98	0.30	3.24	
45 and older	0.73	0.37	1.42		0.77	0.60	0.98	<.05	0.41	0.18	0.91	<.05
Education												
Less than college (reference)												
College degree	0.73	0.48	1.11		1.41	1.11	1.79	<.01	1.37	1.24	1.52	<.001
Graduate degree	0.72	0.39	1.34		2.05	1.02	4.14	<.05	0.95	0.44	2.08	
Nonwhite	1.30	1.02	1.02	<.05	1.16	0.57	2.36		1.46	0.58	3.67	

Table 4. Odds Ratios and 95% Confidence Intervals for Logistic Regression Models Predicting Key Behaviors and Outcomes (cont.)

	4. Asked partner about symptoms				5. Difficulties accessing healthcare			
	OR	95% CI		<i>p</i>	OR	95% CI		<i>p</i>
Survey date on or after May 1, 2020	0.84	0.71	0.99	<.05	1.49	0.90	2.47	
Any COVID-19 risk factor	1.34	0.79	2.28		1.26	1.14	1.40	<.001
Sheltering in place	0.91	0.44	1.88		0.80	0.27	2.39	
Live alone	1.29	0.65	2.56		0.88	0.67	1.15	
HIV positive	1.49	1.01	2.21	<.05	1.74	1.14	2.66	<.01
Age								
18 to 29 (reference)								
30 to 44	0.99	0.62	1.56		0.91	0.60	1.38	
45 and older	0.57	0.26	1.25		1.28	0.88	1.97	
Education								
Less than college (reference)								
College degree	1.51	0.78	2.94		1.15	0.98	1.35	<.1
Graduate degree	1.50	0.94	2.39	<.1	1.56	1.17	2.08	<.01
Nonwhite	1.44	0.96	2.17	<.1	1.23	0.82	1.84	

Figure 1. Distribution of Responses to the Question “Is [the number of partners you had in last 30 days] more or less than before the start of the coronavirus epidemic in the US, around the end of February/beginning of March?” by Number of Sexual Partners in Last 30 Days

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