Clinical and Case Study Article

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Reducing sexually associated transmission of COVID-19 in men who have sex with men

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ABSTRACT

Believed to be zoonotic in origin, COVID-19 is a novel coronavirus subtype, which spreads from person to person through droplet transmission. As of late April, 2020, 895,766 cases of COVID-19 infections were recorded in the United States. This infection was responsible for 50,439 deaths. Because of close, person-to-person proximity, coupled with possible contact with body fluids, transmission of COVID-19 during sexual activity is possible. However, some activities carry higher risks of transmission than others. This article explores the risks of COVID-19 transmission associated with kissing, oral sex (fellatio and annilingus), and anal receptive and anal insertive intercourse among men who have sex with men (MSM). Recommendations for counseling MSM on safer sexual decision-making, many of which are applicable in the general prevention of sexually transmitted infections, are also provided. Nurse practitioners can serve as advocates in preventing sexually associated COVID-19 communication in MSM and contribute to the advancement of this continuously evolving area of public health science.

Keywords: Bisexual; coronavirus; COVID-19; gay; homosexual; men who have sex with men; SARS-CoV-2.

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Introduction

In December of 2019, a novel coronavirus, typified as severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) by the International Committee on Taxonomy of Viruses, emerged in Wuhan, China (Centers for Disease Control and Prevention [CDC], 2020a; Rodriguez-Morales, 2020). The World Health Organization (WHO) immediately recognized the infection as a major international public health emergency within 2 weeks, and COVID-19, the resulting disease from infection, has become a worldwide pandemic (Rodriguez-Morales, 2020).

Although the data regarding transmission, course of infection, virologic variance, and efficaciousness of various treatment are evolving, some data do exist that suggest some sexual activities may pose a risk of transmission. Because men who have sex with men (MSM) have greater numbers of lifetime sexual partners, are more likely to engage in riskier sexual behaviors, and have higher rates of sexually transmitted infections (STIs) (CDC, 2018), prevention of communication of COVID-19 during sexual activities within this vulnerable population is vital. This article will closely assess the transmission of COVID-19 from person-to-person activity and examine the risk of COVID-19 transmission associated with kissing, oral sexual activities, anal receptive, and anal insertive practices.

Transmission of COVID-19 from person-to-person

The CDC (2020a) explains the transmission of COVID-19 because of the spread through respiratory droplets that occur when an infected person coughs or sneezes. These droplets then fall into the respiratory tract of nearby persons through either the mouth, nose, or directly into the lungs. Close face-to-face social contact, particularly in enclosed spaces, has also been associated with transmission (Fisher & Heymann, 2020). Although it is hypothesized COVID-19 is shed most when infected individuals are symptomatic, there are documented cases of individuals who are unable to trace possible etiologic sources resulting from contact with symptomatic individuals (CDC, 2020a).

Consequently, the possibility of shed and communication among infected persons not exhibiting symptoms is also feasible (CDC, 2020a). Once a person is identified as being infected, the person should be isolated from others and cared for by individuals adhering to strict care protocols that reduce their potential for becoming infected (CDC, 2020a). This isolation can be discontinued based on a combination of repeated negative diagnostic tests, client symptoms, and guidelines issued by local health

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departments (CDC, 2020a; CDC 2020b). Because the possibility of transmission is higher when persons are near one another, it is recommended that persons maintain at least six feet of distance between themselves when in their communities (CDC, 2020a) and wear a cloth mask (CDC, 2020c; Kassel, 2020).

Most sexual activities occur when individuals are closer than 6 feet of proximity to one another. As a result, this proximity standard will most likely be violated during most sexual activities. Promoting the use of sexual negotiation strategies, condoms, and other means of prevention of contact with potentially infectious body fluids or integumentary surfaces during sexual activity is the general approach to preventing STIs in MSM (CDC, 2016; Fenway Health, 2020). Although these tactics are absolutely vital in preventing the spread of STIs, particularly HIV, they do not consider the additional route of droplet transmission associated with the communication of COVID-19.

In addition, similar to the increased risk of infection associated with specific STIs with certain sexual behaviors compared with others (e.g., receptive anal intercourse carries higher risk of HIV infection than receptive oral sex), some sexual activities can pose higher risk of COVID-19 transmission than others. There are also steps a person can take while engaged in sexual activity that can reduce their risk of transmitting and acquiring the infection.

Transmission risks associated with specific sexual activities in MSM

Deep kissing

Deep (or "open mouth") kissing carries lower risk of transmission of STIs compared with oral or anal sex but is not without risk (Sealdi-Schulman, 2019). However, because saliva and mucous are respiratory droplets, transmission of COVID-19 through kissing is possible (Corrado, 2020; Kassel, 2020; NYC Health, 2020). In addition, deep kissing (CDC, 2020d) can result in direct droplet transmission from an infected individual's respiratory tract to that of an uninfected host. NYC Health (2020) asserts kissing can easily pass COVID-19. Consequently, kissing should be avoided because of its possible role in transmitting COVID-19 (Corrado, 2020; Kassel, 2020).

Oral sexual activity

Fellatio. Many STIs can be spread through oral sex (CDC, 2020d, para. 1). Mouth-to-penis contact may be considered a higher-risk activity associated with transmission of COVID-19. The virus is shed in feces (Corrado, 2020; Kassel, 2020; NYC Health, 2020; Tian, Rong, Nian, & He, 2020). In fact, a recent Chinese study showed fecal excretion of the virus occurred 1–11 days after sputum excretion was no longer detectable (Tian et al., 2020). The close proximity of the male genitalia to the rectum, coupled with the transfer of infected fecal particles to the penis by contaminated hands, make the inhalation of infected droplets by an oral receptive partner a possibility.

Thus, hand washing (CDC, 2020a), particularly after bowel movements and before and after sex, is vital to reducing the spread of COVID-19 (Planned Parenthood, 2020). In addition, to reduce the risk of transmission during fellatio, barriers should be used. For example, the use of condoms during fellatio might prevent the spread of COVID-19 (NYC Health, 2020). It is important to note that thus far studies assessing the presence of COVID-19 in semen have been conflicting. For example, although scrotal pain was reported in a small sample of Wuhan Chinese clients infected with COVID-19, the virus was not found in the semen of participants one month after COVID-19 diagnosis (Feng et al., 2020). However, a latter study conducted in Shangqui, China, found that 15.8% of participants' semen tested positive for COVID-19.

Of these 38 participants who provided a semen specimen, 23 participants (60.5%) had achieved clinical recovery and 15 participants (39.5%) were at the acute stage of infection. The results of semen testing found that six patients (15.8%) had results positive for SARS-CoV-2, including 4 of 15 patients (26.7%) who were at the acute stage of infection and 2 of 23 patients (8.7%) who were recovering, which is particularly noteworthy (Li et al., 2020, p. 2).

Consequently, contact with semen could result in transmission of COVID-19. However, because more studies are needed to confirm these findings, specific recommendations based on their results cannot be provided (American Society for Reproductive Medicine, 2020). Thus, providers should encourage the use of condoms during fellatio as a possible means of preventing the spread of COVID-19 (NYC Health, 2020).

Anillingus. Anillingus (also known as rimming) is considered a higher-risk sexual activity that could be associated with the transmission of COVID-19 (Corrado, 2020; Kassel, 2020; NYC Health, 2020). This is because, as discussed previously, feces have been shown to be a reservoir for the virus (Feng et al., 2020). During anal oral activity, lingual contact with infected feces is possible. Consequently, inhalation of these infected particles into the respiratory tract of a host could result in the transmission of COVID-19.

Thus, although avoidance of this activity would best limit it as a potential risk for transmission, the use of a barrier during rimming is advised (Corrado, 2020; Kassel, 2020; NYC Health, 2020). For example, condoms placed over the tongue or the use of dental dams might limit the amount of potentially infected fecal particles that come into contact with the lingual surface, reducing the likelihood of infection (NYC Health, 2020).

Anal intercourse

Anal intercourse, particularly receptive anal intercourse, has long been established as the highest risk behavior associated with HIV infection (CDC, 2020e). Similar to oral

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Table 1. Risk reduction strategies to prevent sexually associated communication of COVID-19 among men who have sex with men

• Limit number of sexual partners, preferably to those who are live in only
• Avoid use of mobile- or internet-based sexual networking applications (e.g., Grindr, Scruff, and Adam4Adam) to recruit sex partners
• If immunocompromised due to HIV infection or other etiology, avoid sexual activity
• Wash hands with soap and warm water for at least 20 seconds before and after any sexual activity
• Avoid kissing
• Use a condom when performing fellatio
• Use a condom or barrier (e.g., dental dam) when performing anillingus (rimming)
• Use a condom during anal intercourse
• Do not insert penises or toys into the oral cavities of sexual partners after anal insertion

Note: References: CDC, 2020a; Corrado, 2020; Feng et al., 2020; Kassel, 2020; NYC Health, 2020; Planned Parenthood, 2020.

sexual activities, anal intercourse may also be associated with COVID-19 infection because of contact with infected fecal particles, but because droplet transmission of the virus requires communication of infected fluids into the respiratory tract of a host, contact of the insertive partner's penis with the receptive partner's anal tissue, feces, or anal mucous alone will not serve as communication.

However, oral sexual activity given to an insertive partner after contact with these fluids could result in transmission to the oral receptive partner (Planned Parenthood, 2020). Thus, during group sexual encounters, MSM should avoid providing fellatio to anally insertive sexual partners. This same principle holds for the use of anally insertive sex toys. After anal insertion, these devices should not be placed into the oral cavities of sexual partners because of the risk of droplet transmission from possibly infected feces (Planned Parenthood, 2020).

Implications for nurse practitioners: counseling MSM about safer sex decision-making

There is no sexual act that does not come with some aspect of physical or emotional risk (Corrado, 2020). However, with guidance provided by nurse practitioners (NPs) and other healthcare professionals, MSM can make wiser choices regarding their sexual health and reduce their risk of communicating COVID-19. MSM should be encouraged to limit their number of sexual partners. Limiting sexual partners to live-in persons only is advised (Kassel, 2020). Thus, using mobile and Internet sexual networking applications and Web sites to recruit sex partners should be discouraged. In addition, if one partner is experiencing symptoms of COVID-19 (e.g., fever, sweats, chills, cough, and myalgia), he should refrain from engaging in sexual activity with others, including a live-in partner (Kassel, 2020).

Those who are immunocompromised, because of HIV infection or other etiology, should limit their sexual activity, even with live-in partners (Kassel, 2020). Obviously, establishing a 6-foot distance from a sexual partner is impossible when engaging in behaviors such as kissing, performing or receiving oral sex, or having anal receptive or insertive intercourse. Thus, other risk reduction strategies must be used to help diminish the risk of COVID-19 communication during these activities.

NPs should encourage clients to avoid kissing because this could carry a high risk of viral transmission (Corrado, 2020; Kassel, 2020; NYC Health, 2020; Planned Parenthood, 2020). MSM should also thoroughly wash their hands for 20-full seconds with soap and warm water before and after any sexual activity (CDC, 2020a; Planned Parenthood, 2020). Condoms should be worn by men receiving fellatio, and barriers, including condoms, should be used when performing anillingus (Corrado, 2020; Kassel, 2020; NYC Health, 2020; Planned Parenthood, 2020).

NPs should also encourage clients to use condoms during anal intercourse, avoid mouth contact with penises or sex toys that have been anally inserted, and to thoroughly clean sex toys with soap and warm water after use (Corrado, 2020; Kassel, 2020; NYC Health, 2020; Planned Parenthood, 2020). **Table 1** presents the risk reduction strategies that NPs and other clinicians can use to educate their MSM clients on the reduction of the risk of COVID-19 communication during sexual activity.

Limitations, lesbian, gay, bisexual, transgender, and queer care considerations, and conclusions

It is essential to consider the limitations of this article. First, the COVID-19 pandemic is continuously evolving. The data presented here are relevant and correct at the time they were reported but the guidelines are dynamic, and new

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Table 2. Select online resources on COVID-19 for healthcare professionals

• American Association of Nurse Practitioners (AANP, 2020): Coronavirus Disease 2019 (COVID-19) Policy and Practice Updates
https://www.aanp.org/advocacy/advocacy-resource/coronavirus-disease-2019-covid-19-policy-updates
Provides resources from AANP, tracking the policy response to the COVID-19 pandemic, with federal and state policy resources.
• ECRI institute: COVID-19 resource center
https://www.ecri.org/coronavirus-covid-19-outbreak-preparedness-center
Provides healthcare providers and comunnity with free and shareable resources in response to the COVID-19 pandemic.
• Centers for Disease Control and Prevention (2020f): Information for healthcare professionals on coronavirus (COVID-19).
https://www.cdc.gov/coronavirus/2019-ncov/hcp/index.html
Provides up-to-date resources for healthcare professionals, including information and telephone number for the CDC clinican on-call center, a 24-hour hotline with trained CDC clinicians standing by to answer COVID-19 questions from healthcare personnel on a wide range of topics, such as diagnostic challenges, clinical management, and infection prevention and control.
• National Institutes of Health (2020): Coronavirus (COVID-19)
https://www.nih.gov/health-information/coronavirus
Provides resources for healthcare professionals regarding COVID-19 testing, about Activ (NIH's collaboration and data sharing efforts through the Accelerating COVID-19 therapeutic interventions and vaccines), grants and funding, and information for the public.

Note: COVID-19 = Coronavirus 19; ECRI = Emergency Care Research Institute.

knowledge about COVID-19 and its transmission is being discovered daily. Consequently, readers need to stay abreast of the changing public health landscape and new findings that relate sexual activity to viral communication. **Table 2** provides a listing of key science-based online resources for NPs and other clinicians to seek out accurate, timely, and evidence-based evolving information on this disease.

Second, the information presented here has focused on prevention of COVID-19 infection in MSM. It has not focused on prevention of HIV and/or other STIs in this population. Thus, NPs and other clinicians should consult the existing literature about condom use and other strategies to prevent HIV and STIs in this vulnerable group of men. Many of these principles overlap and are applicable to prevention of COVID-19 and other STIs as well, including HIV. Resources such as those provided by the Fenway Instituite (2020), Fenway Health (2020), and Gay and Lesbian Medical Association (GLMA) (2020a, 2020c) are useful for both clients and clinicians and provide a wide spectrum of information regarding reducing STIs in MSM.

Establishing a trusting rapport with MSM clients is essential for NPs or other healthcare professionals working with lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities. Many MSM have been traditionally distrustful of the healthcare system because of the fear of discrimination and associated stigma associated with either their bisexuality or homosexuality identity or same-sex sexual activities (Martos, Wilson, & Meyer, 2017). This can contribute to access issues among this population and a hesitation to enter the healthcare system for care (Martos et al., 2017).

Although a discussion of these concepts is beyond this exposition, readers are encouraged to review resources provided by authors such as Streed (2018) and organizations such as the GLMA (GLMA, 2020a) and Fenway Institute's National LGBT Health Education Center (2020). The COVID-19 pandemic has become a global reality that has affected persons beyond national boundaries and sexual orientations. However, the impacts the pandemic has made on the LGBTQ community are unique and exacerbated by health disparities established in these persons before COVID-19 became a major public health issue (GLMA, 2020b).

Thus, NPs must incorporate knowledge of these historic issues and the cultural considerations appropriate to caring for LGBTQ persons when providing sexual guidance to their MSM clients. NPs should also serve as mentors and LGBTQ advocates to their colleagues both inside and outside of nursing. Finally, NPs should be at the forefront of the evolving science examining the prevention of COVID-19 during sexual activity in MSM, ensuring optimal outcomes in the MSM they treat.

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contributions to the conception or design of the work and the acquisition, analysis, and interpretation of data for the work; drafting the work or revising it is critically for important intellectual content; final approval of the version to be published; and agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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