
*Opinion***Risk of COVID-19 among the LGBTQ population****Zeeshan Ahmad Khan^{1*}, Shahkar Falak², Alok Raghav³, Chandresh Sharma⁴, Asamanja Chatteraj⁵**¹ School of mechanical Engineering, Korea university of technology and education² Department of chemical engineering, Yeungnam university, South Korea³ Multidisciplinary Research Unit, Department of Health Research, Ministry of Health and Family Welfare, GSVM Medical College, Kanpur-208002, U.P, India⁴ Translational Health Science and Technology Institute, NCR Biotech Science Cluster, 3rd Milestone, Faridabad, India⁵ Department of Animal Science, Kazi Nazrul University, Asansol, West Bengal, India

Opinion

The cases of the new coronavirus disease 2019 (COVID-19) are ascending steeply, overwhelming the governments, hospitals, medical care, with 23,408,376 active cases and 809,098 deaths, globally. Almost all the countries including all the sections of society are suffering, however, several organizations are arguing that lesbian, gay, bisexual, transgender and queer or questioning (LGBTQ) population are more likely to get infected and suffer from coronavirus than the remaining population. An open letter is issued by the national LGBTQ network to health professionals, demanding a sympathetic response towards LGBTQ people in these unexpected circumstances.

The discrimination against the LGBTQ population is well documented. It has already been demonstrated that LGBTQ people experience higher health problems, and many are devoid or delayed care because of homophobia based discrimination (1). As the COVID-19 increases in religiously driven nations, where discrimination against LGBTQ population is higher than the

western population. The chances of discrimination in diagnosis and medical care further increases. Like the multicultural hub of Itaewon which resulted in a new coronavirus hot spot in Korea infecting more than hundreds of people. This region offers a convenient concentration of gay clubs, restaurants, bars and dancehalls which particularly caters to gay men. News of more than hundred other infections linked to these nightclubs sparked a homophobic backlash against the LGBTQ community, feeding into the long history of stigma driven by the country's protestant right. The identification of Itaewon infections with sexual minorities has led to difficulties in conducting extensive testing and contact tracing. The most important issue that LGBTQ population faces is that their sexual identity will be publicly revealed which might result in losing their jobs, friends, and even family (2). As we all know, South Korea has garnered a lot of praise worldwide by flattening the curve of new infection by rapid testing and contact tracing, but for the LGBTQ community it is the reason for high criticism as it might reveal their sexual orientation without their consent. In a

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country where gay men often live in the shadows and same-sex marriage is banned it is a matter of great concern. It became apparent by the Itaewon cluster that the greatest vulnerabilities of sexual minority groups are not HIV or immunodepression, but the sexual behaviors that promote transmission, e.g., casual sex acts with multiple unknown partners, and the social pressure that discourages them from revealing their contact history such as who the contacts are and where they had visited. To address this problem of hiding infection and immediate testing, the government should create a safe and welcoming environment. Testing should be done anonymously and without publicizing their personal details. This way their safety will not be threatened by their sexual identity.

As we all know, sex is a normal part of life and should always be with the consent of all parties. Below are few strategies encouraging happy and healthy sexual lives during the pandemic period to reduce the risk of spreading COVID-19 during sex.

1. Have sex only with people close to you:

- **You are your safest sex partner.** Masturbation will not spread COVID-19, especially if you wash your hands and any sex toys properly with soap and water for at least 20 seconds before and after sex.
- **The next safest partner is someone you live with.** Having close contact, including sex with only a small circle of people helps prevent spreading COVID-19. Have sex only with consenting partners.
- One should limit close contact with anyone outside his household.

- Disinfect keyboards and touch screens that you share with them.
- If one happens to have sex with others outside his household, it is advised to have as few partners as possible and engage with the ones you trust.
- Discuss about COVID-19 risk factors, just as one would discuss pre-exposure prophylaxis (PrEP), condoms, and other safer sex topics. Make sure they are not infected before hooking up.
- Large gatherings of any type are not safe during COVID-19 like saunas and clubs, as close contact with multiple people must be avoided.
- If one usually meets his sex partners online or make a living by having sex, should consider taking a break from in-person dates. He should opt for other suitable options like video dates, sexting, subscription-based fan platforms, or chat rooms.

2. Take care during sex:

- Since the virus may spread through particles in saliva, mucus or breath of people with COVID-19, even from people who do not have symptoms (3). So, kissing/touching/ sex with someone who is not part of your small circle of close contacts should be avoided. Use physical distance and face coverings to reduce the risk.
- One should wear a face covering that covers his nose and mouth is a good way to add a layer of 3 protection during sex. Heavy breathing and panting can spread the virus further, and if you or your partner have COVID-19 and don't know it, a mask can help stop that spread.
- Condoms and dental dams can reduce contact with saliva, semen, or feces during sex.
- Washing up before and after sex is more important than ever.

3. Prevent human immunodeficiency virus (HIV), and other sexually transmitted infections (STIs):

- Using condoms help prevent other STIs and HIV, taking PrEP and having an undetectable viral load all help prevent HIV.

4. Avoid having sex if you or your partner is not feeling well:

- If one feels unwell, or even start to feel unwell, avoid kissing, sex or any close contact with others.
- Check your temperature or symptoms before getting involved.
- If you have been exposed to someone with COVID-19, avoid close contact with anyone outside your household and should immediately get tested for the virus using a swab or saliva test.
- If you or your partner have a medical condition that can lead to severe COVID-19 illness, which includes lung disease, heart disease, kidney disease, liver disease, moderate to severe asthma, diabetes, obesity, cancer or a weakened immune system (for example, having unsuppressed HIV or a low CD4 count), should avoid having sex.

Since the coronavirus is a respiratory diseases which and the chances and severity of infection increases in the smoking population (4). Moreover, the smoking tendency in LGBTQ people are higher than the cisgender adults, with also reduces the immunity of an individual adults (5-7). Cumulatively, the LGBTQ people are at higher risk COVID-19 risk, may take more recovery time than a cisgender adult of same age.

Secondly, multiple cross-sectional studies have shown that LGBTQ have higher rates of both cancer and AIDS (8-11). Both these conditions, cancer and AIDS cripples the immune system (12-15). AIDS can also lower the virus specific immunity in the patient (14). Researchers have shown that COVID-19 affects people with lower immunity, therefore, LGBTQ people are at higher risk than the heterosexual population.

Another major issue with LGBTQ population in the developing country, where the LGBTQ population is higher, they move in groups. They usually survive by begging in groups. Social-distancing, which is considered as the primary tool to prevent the COVID-19, will be extremely difficult for the LGBTQ people. Therefore, special care should be given to the LGBTQ population. Government should issue special packages for the LGBTQ population, especially, homeless LGBTQ.

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