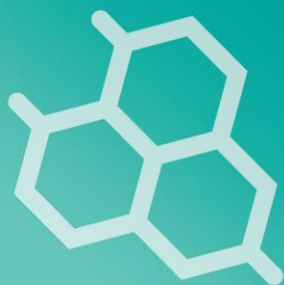


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POTENTIAL RISK OF SEXUAL TRANSMISSION OF MONKEYPOX IN BANGLADESH: A CALL FOR ACTION

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ABSTRACT

Zoonotic viral infection is a major public health concern affecting all the Countries. Monkeypox is currently spreading throughout the world, mainly among the MSM community. Although monkeypox has not yet affected Bangladesh, it may do so in the future due to sexual intercourse among the MSM community and cross-border relations with infected regions. Evidence of rapid increases in STDs among sex workers, the MSM community, and drug users imposes a potential risk of sexual transmission of monkeypox in Bangladesh. A multidisciplinary and integrated strategy and international collaboration are necessary for the cost-effective prevention and control of monkeypox in Bangladesh.

1. INTRODUCTION

Zoonotic Viral Infections have been a public health vulnerability, which affecting all countries. Poverty, along with its associated problems of unhealthy lifestyle, nutritional deficiency, illiteracy, lack of sanitary facilities, clean water, high-quality healthcare, and variations in temperature and weather patterns, hike the likelihood of zoonotic viral diseases spreading to Bangladesh. Human induced causes such as agricultural and livestock farming modernization, wild animal hunting, the loss of wild animal ecosystems, hybridization of wild and captive animals, wildlife commerce, evolving dietary patterns, and industrialization might all contribute to the rise of zoonotic illnesses in individuals. Bangladesh has reported numerous new infectious disease outbreaks since 2001, including nipah, highly virulent avian influenza, pandemic H1N1, and COVID-19. Monkeypox, Langya, Marburg, Ebola, Middle East respiratory syndrome coronavirus, Kyasanur forest disease virus, and Crimean-Congo hemorrhagic fever are only a few of the possible zoonotic viruses that might extent in the future(1)(2). The COVID-19 epidemic has exposed the shortage of a strong infection control system in Bangladesh (3).

Although the COVID-19 pandemic hasn't ended, monkeypox (MPX) international outbreak, a zoonotic viral disease, is now being experienced (4). Because of the rapid spread of MPX, the World Health Organization (WHO) proclaimed it a Public Health Emergency of International Concern (PHEIC) in July 23, 2022(5). India found the first MPX case in South Asia on July 14, 2022(6).

MPX is induced through a double-strand DNA virus called as monkeypox virus (MPXV), which belongs to the Orthopoxvirus species within the Poxviridae group. Physical interaction with infected species' blood, body fluids, or cutaneous or mucosal lesions can result in animal-to-human transmission. During sexual action, such as oral, vaginal, or anal sex, and foreplay, skin-to-skin interaction may happen. According to the CDC, transmission can also occur at these intimate behaviors like kissing, snuggling, or massage, because the virus can spread through direct touch with an affected individual's sores or scabs, as well as body fluid(7). According to researchers, monkeypox is currently spreading mostly among the social and sexual groups of gay and bisexual men as well as other men who have sexual intercourse with men (MSM). Since 2018, sporadic transmission of monkeypox has been identified in the United Kingdom, Singapore and the USA. As of June 21, 2022 monkeypox multinational outbreak appears with 2677 confirmed cases in the UK as well as other European and non-European countries. There is a chance that this outbreak will continue to spread from person to person among non-travelers, especially among males who have sexual intercourse with men (MSM). These kinds of instances happened in HIV-positive MSM, as well as a syphilis co-infection has been recently confirmed in Czech Republic. Furthermore, the transmission of infection from the sperm, vaginal and rectal lesions, and faces has been identified on 4 MSM in Italy (8). The significance that monkeypox might be sexually transmissible is highlighted by the available data, even though more research is necessary to corroborate widespread supposition. These investigations do not demonstrate infectivity, but they do demonstrate viral shedding, and it is impossible to eliminate the possibility of widespread dissemination.

Although Monkeypox has not yet severely affected Bangladesh, it may do so in the future due to sexual intercourse of MSM community and cross-border social and economic ties with the infected regions. Despite the widespread prevalence of homophobia in Bangladeshi cultures, nobody can deny the existence of MSM community in its history. Gender segregation as well as the control on female's sexual behavior are social traditions in Bangladeshi communities. Such Segregation frequently limits the possibility of sexual relationships among men and women. Before being married, Bangladeshi men and women must restrain their sexual urges. The marriage is frequently postponed until their education is not completed or a career and business have not been established. To put it another way, guys frequently feel comfortable enough to make physical touch with other men to show their affection. 'Male-only' parties feature a lot of mingling. According to research, a sizable portion of males would either use female sex workers or, in the absence of such options (because of high fees, inaccessibility, etc.), would have little issue getting sex with another man. Similar scenarios exist in prison inmates, residential schools, the military, and wherever else where only one gender circumstances have created (9).

A variety of variables put vulnerable populations in Bangladesh at likelihood of an abrupt increase in monkeypox dissemination, which might result to an enlarged MPX pandemic in the public in general and other vulnerable categories. MSM and TG communities, similar to other high-risk groups like drug addicts and sex workers. In Bangladesh, condom use for sex with both male and female partners is quite often relatively low, with many or even all MSM engaging in sexual activity with female partners.

The contribution of MSM to the HIV epidemic among their female partners may be significantly undervalued given the high incidence of HIV and STI among MSM, the much higher potency of anal sex in terms of transmission, and the fact that the context of behavior patterns, such as stigma and violence, pose a higher risk for transmission (10). Globally 33.2 million children and young people

are affected with HIV/AIDS. Despite its rapid growth among groups at-risk, such as sexual service providers and their customers, men having sexual intercourse with men (MSM), and injectable drug users and their companions, the prevalence of HIV transmission in Bangladesh is still relatively low. As of now, Bangladesh has recorded 8,761 HIV cases with a fatality rate of 18.13 percent. Because of ongoing poverty, overcrowding, gender and health disparities, cultural stigma, and a higher than average rate of sex trade, this region continues to be particularly vulnerable to the Sexual Transmission of infectious diseases (11). STIs are common all over the globe. Prevention is the most effective method for reducing STI morbidity and death. Analyzing the epidemiology of each virus, especially social determinants, is critical for preventative and control measures. In this day of good transport links and global trade, the epidemiology of STIs would continue to grow and evolve, and hence must be kept up-to-date on a regular basis to stay focused with emerging diseases globally. Certain groups seem to be more vulnerable to STDs than the others due to risk factors include age, socioeconomic background, and high-risk sexual behavior (12).

The prevention of monkeypox in Bangladesh is dependent on focusing on immunization and disease preventive initiatives, along with rigorously monitoring the outcomes of specific initiatives. Public health awareness campaigns concentrating on STDs should be implemented on a regular basis. This may assist to lower the frequency and complications of STDs and, as a result, may interfere with Monkeypox transmission in Bangladesh. It will be simpler to address problems with local medical systems if all of the WHO's listed medical system components are fully understood, including the distribution of basic healthcare, a top-of-the-line medical care personnel, information technology for healthcare, convenient procuring prescribed drugs, financing, and supervision. Making national strategies for development and promptly updating them with feedback from the adoption of standards of excellence in pandemic preparedness throughout the public and business sectors is crucial. Cross-border collaboration with international organizations is important to control the monkeypox epidemic at its source and throughout its spread. Meanwhile, regional cooperation among South Asian countries might help to resolve present challenges (13).

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