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Perspective

COVID-19 and religious congregations: Implications for spread of novel pathogens

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A B S T R A C T

The COVID-19 pandemic is ravaging the world. A principal preventive strategy is practicing social distancing. Congregations of the faithful at the local and transnational levels are strongly recommended by several world religions and religious orders, however, a gathering of large numbers of people in close approximation could be fertile ground for the spread of novel pathogens. The refusal to suspend such gatherings could lead to potential widespread dispersal of infections.

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Introduction

Currently, the world is facing an unprecedented global medical emergency in modern history, the COVID-19 pandemic. The virus seems to hold no bar and continues its relentless march across the globe. COVID-19 is spread through droplets; the basic reproduction rate, a measure of transmissibility of the virus, ranges from 2.24 to 3.58 (Zhao et al., 2020). Public gatherings evidently increase transmission, and therefore social distancing was touted as the foremost preventive strategy.

Dealing with religious congregations (RC) in times of epidemics could be challenging. Most world religions prescribe congregations of its adherents at local, national, and international levels as part of their faith. This mobilization and gathering could serve as a potential focal point for dispersal of novel pathogens, especially those transmitted through the respiratory route. The events related to the COVID-19 spread among religious assemblies seemingly corroborate this. Ideally, to circumvent this possibility, assemblies of people need to be suspended during such times. It is also imperative that all possible preventive measures be exercised during ordinary times to reduce the chances of cross infections during religious ceremonies. The RC needs to be looked at from this perspective. It has a direct bearing on the extent of epidemic diseases and their global spread. COVID-19 should serve as a game-changer in the manner in which we deal with infectious disease outbreaks from the perspective of RC and their suspension.

Islamic precepts define the personal, social, and communal life of the faithful. All adolescent and adult men are commanded to offer congregational prayers five times a day in the mosques. Friday prayers are to be offered at the city's central mosque in a larger gathering. Prayers are offered by standing in rows in close proximity to each other. Hajj is one of the five fundamentals of Islam. It is the annual gathering of Muslims in the city of Mecca, Saudi Arabia. Umrah is visiting the grand mosque at Mecca at any other time of year.

Communal gatherings among Muslims are also prescribed by certain Muslim sects and organizations. Tablighi Jamaat originated in pre-independent India as an Islamic revivalist movement (Ali, 2003). The group has grown phenomenally over the years received a boost in membership from several other countries. Shiite Islam is a major sect, which emphasizes public commemoration of events in early Islamic history. Shrines of the Shiites are major pilgrimage centers (Luz, 2020).

Iran was one of the worst-hit countries in the current pandemic. It is a prime example of how RC can impact disease transmission. The first COVID-19 deaths were reported from the Shiite city of Qom on February 19, 2020. The disease had apparently started two to three weeks earlier. The Head of the main shrine in Qom appealed to the pilgrims to keep coming to the shrine and called it a place of healing. This apparently led to the unabated spread of the infection, not only within Iran, but around a dozen neighboring countries (Wright, 2020).

Three Tablighi Jamaat meetings in Malaysia, Pakistan, and India became COVID-19 hotspots. The first was from the Tablighi gathering in Malaysia from February 27 to March 3. As many as 1,545 COVID-19 cases in Malaysia were linked to the assembly of Tablighi Jamaat in Kuala Lumpur (Daim, 2020). This apparently acted as a source of the infection for the subsequent two gatherings in Pakistan and India, because the infected Malaysians attended those assemblies. Around 150,000 preachers, mostly from Pakistan but some from other Muslim countries, gathered for a Tablighi Ijtema, a congregation of the preachers, on March 12, 2020, in the eastern Pakistani city of Lahore. This gathering is described as a
transmission hub in Pakistan. The gathering was canceled at the last moment at the behest of the Pakistani Government, but by that time, preachers had already assembled in large numbers. The problem could further explode in the coming weeks (Ur-Rahman et al., 2020).

Tablighi Markaz in the Nizamuddin area of Delhi, the Capital of India, is the global headquarters of the Tablighi Jamaat. Preachers from India and abroad visit this place for deliberations and to learn the Islamic texts. On March 30, 2020, 300 of its members were isolated and tested for COVID-19, after it became known that a gathering of the preachers had included Malaysians and Indonesians. By April 4, 2020, 1023 people linked to this Tablighi Jamaat congregation tested positive across the country (Kumar, 2020). By this time, several attendees of the congregation had already dispersed before the cluster was identified. Apparently, many of them have carried the virus to their native states, posing the threat of broader community spread.

Though no ethnic categorization of Britain’s COVID-19 patients could be found, the independent newspaper reported that Muslims have severely faced the wrath of the pandemic. Large extended families, handshaking, and mosque attendance were cited as the possible reasons (Hussain, 2020).

Saudi Arabia is home to the two holiest places of Islam, Mecca and Medina, where millions of pilgrims from several countries visit throughout the year. Saudi Arabia suspended all Umrah pilgrimage on March 4, 2020. This was a timely and preemptive step to forestall a potential COVID-19 outbreak among the pilgrims. Continuation of the pilgrimage could have posed a severe threat of local and international spread. Saudi Arabia was one of the few Islamic countries to suspend congregational prayers in the mosque, as early as March 17, 2020. All the Gulf states and many other Muslim countries suspended mosque prayers at about the same time. Muslim organizations in Non-Muslim countries also followed suit. Some conservatives in other countries argued for continuing congregational prayers at the mosque. Nevertheless, most of them fell in line; however, by that time, much damage had been done.

A Christian congregation in South Korea was the origin of a large number of COVID-19 cases. After an initial success in limiting the spread, there was a sudden spurt of cases starting in the third week of February 2020, originating from an infected patient attending the Shincheonji Church of Jesus. This Cult believes that illness is a sin, and the sufferer must attend prayers to atone for the sin (Park, 2020). This belief motivated its followers to avoid testing, and some covertly continued to attend Mass. This augmented the problem. A large number of the Cult’s followers were tested, and 5209 were found positive up to April 8, 2020 (Statista). COVID-19 infection rates among the ultra-orthodox Jews of Israel were disproportionately high compared to other Israelis. It is suspected that as many as 40% of residents in an ultra-orthodox neighborhood could be infected. Besides big families and crowded living, unflinching observations of communal religious prayers are considered important causes. The synagogues in this particular neighborhood experienced massive attendance during the Jewish holiday of Purim on March 9, 2020. The community continued its religious gatherings after that and refused to suspend them (Tarnopolsky, 2020).

The International Society for Krishna Consciousness (ISKCON) is a transnational religious movement based on the Hindu philosophy of Bhakti. It became popular in the West in the 1960s, and its temples are found in several countries (Squarcini, 2002). About a thousand ISKCON devotees attended a funeral at its temple in Soho, London, on March 21, 2020. Twenty-one of the attendees tested positive, at least five died, and several are reportedly critical. The United Kingdom had not implemented a lockdown at that time (Tandon, 2020).

The extent of COVID-19 infection had a noticeable pattern with regards to RC. An evident association between early suspension of communal gatherings and lower occurrence of COVID-19 infections in countries that took such measures promptly, can be easily discerned. There are lessons to be learned from the COVID-19 pandemic for governments as well as national and international health organizations. The implications of RC during pandemics cannot be ignored. Prompt responses such as suspension of communal gatherings must be promulgated to ensure social distancing. Reconciliation between the practice of RC and preventive measures has to be introduced during times of heath calamities. Religious, social, and political leaders have to exhibit sagacity and adopt a pragmatic approach. The clergy has to be opted in the suspension of congregations. Countries should prepare an exigency plan such as a Standard Operation Procedure (SOP), with regards to RC during times of infectious disease epidemics.

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References

Kumar P. 30 per cent of coronavirus cases linked to Delhi mosque event: government. NDTV; 2020 April 4. URL: https://www.ndtv.com/india-news/coronavirus-tablighi-jamaat-30-per-cent-of-coronavirus-cases-linked-to-delhi-mosque-event-government-2206163 [Accessed 8 April 2020].

Ali J. Islamic revivalism: the case of the Tablighi Jamaat. J. Muslim Minor. Aff. 2003:23:173–81. doi: http://dx.doi.org/10.1080/13602900309335.

Naib M. At least 40,000 quarantined in India after a single priest spread coronavirus. NBC News; 2020 March 29. URL: https://www.nbcnews.com/news/world/least-40-000-quarantined-india-after-single-priest-spread-coronavirus-n1171261 [Accessed 8 April 2020].

Daim N. Tabligh gathering cluster contributes highest positive Covid-19 figures. New Straits Times; 2020 April 4. URL: https://www.nst.com.my/news/nation/2020/04/581317/tabligh-gathering-cluster-contributes-highest-positive-

covid-19-figures [Accessed 8 April 2020].

Ur-Rahman Z, Abu-Habib M, Mehsud IT. ‘God Will Protect Us’: coronavirus spreads through an already struggling Pakistan. The New York Times; 2020 March 26. URL: https://www.nytimes.com/2020/03/26/world/asia/pakistan-coronavirus-
tablighi-jamaat-italy.html [Accessed 8 April 2020].

Wright R. How Iran became a new epicenter of the coronavirus outbreak. The New Yorker; 2020 February 28. URL: https://www.newyorker.com/news/jour-colum-
nists/how-iran-became-a-new-epicenter-of-the-coronavirus-outbreak [Accessed 7 April 2020].
Luz N. Pilgrimage and religious tourism in Islam. Ann. Tour. Res. 2020;82:102915, doi:http://dx.doi.org/10.1016/j.annals.2020.102915.

Hussain S. NHS officials told me Muslim households are particularly vulnerable to coronavirus — it’s important to understand why. The Independent; 2020 March 19. URL https://www.independent.co.uk/voices/coronavirus-muslim-mosque-closure-prayer-nhs-a9411936.html [Accessed 8 April 2020].

Park SN. Cults and conservatives spread coronavirus in South Korea. Foreign Policy; 2020 February 27. URL https://foreignpolicy.com/2020/02/27/coronavirus-south-korea-cults-conservatives-china/ [Accessed 8 April 2020].

Singh RPB, Haigh MJ. Hindu pilgrimages: the contemporary scene. In: Brunn SD, editor. The changing world religion map. Dordrecht: Springer Netherlands; 2015. p. 783–801. doi:http://dx.doi.org/10.1007/978-94-017-9376-6_39.

Statista. South Korea: Shincheonji Church related COVID-19 cases 2020. Statista; 2020 April 24. URL https://www.statista.com/statistics/1103080/south-korea-covid-19-cases-related-to-shincheonji-church/ [Accessed 24 April 2020].

Squarcini F. “Power of Mysticism” and “Mysticism of Power”: understanding the sociopolitical history of a neo-hindu movement. Soc. Compass 2002;49:343–64, doi:http://dx.doi.org/10.1177/0037768602049003003.

Tandon L. ISKCON reports 21 coronavirus cases; 5 deaths in UK, all had attended funeral gathering. India Today; 2020 April 12. URL https://www.indiatoday.in/world/story/iskcon-reports-21-coronavirus-cases-5-deaths-in-uk-all-had-attended-funeral-gathering-1666032-2020-04-12 [Accessed 14 April 2020].

Tarnopolsky N. Ultra-Orthodox Jews hit disproportionately hard by Israel’s coronavirus outbreak. Los Angel. Times; 2020 April 7. URL https://www.latimes.com/world-nation/story/2020-04-07/ultra-orthodox-jews-hit-disproportionately-hard-in-israels-coronavirus-outbreak [Accessed 10 April 2020].

Zhao S, Lin Q, Ran J, Musa SS, Yang C, Wang W, et al. Preliminary estimation of the basic reproduction number of novel coronavirus (2019-nCoV) in China, from 2019 to 2020: a data-driven analysis in the early phase of the outbreak. Int. J. Infect. Dis. 2020;92:214–7, doi:http://dx.doi.org/10.1016/j.ijid.2020.01.050.