



# The need to consider social and cultural factors when reporting successful non-hospital transmission strategies for COVID-19

Ann Marie Kuchinski<sup>1</sup> · Matt Lyon<sup>1,2</sup> · Robert Gibson<sup>1</sup>

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This commentary points out the need to consider social and cultural factors when reporting successful non-transmission strategies for COVID-19 in hospital settings. Healthcare practices do not exist apart from wider community practices and norms. It is important that culturally influenced behaviors, especially around issues of compliance and non-compliance, be considered when discussing successful or unsuccessful COVID-19 mitigation strategies [1].

The paper *Management Practices of Emergency Departments in General Hospitals Based on Blockage of Chain of Infection during an COVID-19 Epidemic* provides an examination of the successful infection control process at Peking University First Hospital Emergency Department (ED) early in the pandemic [2]. Hu et al. describe their approach as follows:

As the emergency department of a large comprehensive hospital, the ED team can choose to block the chain of infection on three aspects: source of infection, transmission routes, and susceptible populations. Our study also proved that for the emergency department, the strategy of blocking the chain of infection (including controlling the source of infection, cutting off the transmission route, and protecting susceptible populations) could effectively prevent and control COVID-19, and maintain normal operation of the emergency department as well as the safety of patients and medical staff during the epidemic to a maximum extent (pg. 1550) [2].

Hu et al. concluded that these efforts explained the absence of any hospital-transmitted COVID-19 infections

for staff and patients during the first three months of the pandemic.

Although the infection control practices described by Hu et al. were successful, it is important to note that the success of these in-hospital interventions did not occur in isolation from wider social and cultural contexts. The influence of culture on health and health care practices is well known. For example, the degree to which people are willing to wear masks, social distance, or change behaviors that can spread the virus. Cultural practices such as hand shaking or kissing on the cheek as a form of greeting can be hard to change, but reduce transmission of the disease, as does changing some religious practices such as sharing a chalice during Holy Communion [3]. While Hu et al. fleetingly referenced how health care worker attitudes and hospital norms could affect the rate of hospital-acquired infections, they did not adequately address the potential impact of cultural practices in mitigating or exacerbating virus transmission. “When considering new diseases, epidemics, and pandemics, we must consider culture perceptions and ways they may affect how symptoms are recognized, access to care, treatment provided, and fear of stigmatization” (pg. 330) [3]. To fully understand the success described by Hu et al., social and cultural factors must be taken into account. These factors include, but are not limited to a government’s ability to mandate and enforce behavior, the public’s ability and willingness to comply with prevention measures, access and affordability of testing and treatment, and structural disparities between populations that affect one’s ability to comply with public health recommendations [1].

The efforts put into practice in China were detailed in the World Health Organization WHO-China Joint Mission Report. This report examined early efforts to combat the novel coronavirus and called China’s public health measures “perhaps the most ambitious, agile and aggressive disease containment effort in history” [4]. Early success at disease mitigation was not limited to China, however, as seen in the examples of Australia and New Zealand

✉ Ann Marie Kuchinski  
akuchinski@augusta.edu

<sup>1</sup> Department of Emergency Medicine, Augusta University, 1120 15th Street, Augusta, Georgia 30912, USA

<sup>2</sup> Center for Ultrasound Education, Augusta University, 1120 15th Street, Augusta, Georgia 30912, USA

among others. Chen et al. compared the effectiveness of the mitigation strategies of six countries (China, Korea, Japan, Italy, the United States, and Brazil) affected by COVID-19. They attributed the success of China and Korea to high levels of testing and effective contact tracing as well as lock downs, school closures, and public cooperation, such as wearing masks and social distancing [5]. The implementation and receptiveness to these measures, and therefore their effectiveness, is influenced by society type—specifically the degree to which a society is individualistic or collectivist.

One way societies and cultures differ is the degree to which they are individualist or collectivist; societies such as China are described as collectivist. “In individualist societies people are autonomous and independent from their in-groups; they give priority to their personal goals over the goals of their in-groups, they behave primarily on the basis of their attitudes rather than the norms of their in-groups...” (pg. 909) [6]. In collectivist societies, people demonstrate the opposite. A meta-analysis by Bond and Smith confirmed that “Collectivist countries tended to show higher levels of conformity than individualist countries” (pg. 111) [7]. This can often translate into higher levels of compliance [8] which would extend to public health measures. Individual as well as societal practices and customs should be considered when describing non-transmission success, such as that described by Hu et al. “Collective actions led by governments are deemed as crucial steps to overcome the emerging problems associated with [COVID-19]” (pg. 33) [9].

According to a report by the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19), measures taken to control the virus in Wuhan were viewed as a collective action. Guan et al. note that “China employed nationwide lockdown, individual isolating, community recording, and domestic and international travel tracking” (pg. 3) [4].

Achieving China’s exceptional coverage with and adherence to these containment measures has only been possible due to the deep commitment of the Chinese people to collective action in the face of this common threat. At a community level, this is reflected in the remarkable solidarity of provinces and cities in support of the most vulnerable populations and communities. Despite ongoing outbreaks in their own areas, Governors and Mayors have continued to send thousands of health care workers and tons of vital PPE supplies into Hubei province and Wuhan city.

At the individual level, the Chinese people have reacted to this outbreak with courage and conviction. They have accepted and adhered to the starkest of containment measures—whether the suspension of public gatherings, the month-long ‘stay at home’ advisories or prohibitions on travel (pg. 17) [4].

“The level of collective cooperation and compliance from individual citizens is beyond apprehension to many cultural outsiders” (pg. 3) [9]. All of these actions reduced the disease burden in the community and the strain on health care resources, thereby slowing transmission within and outside of healthcare settings.

An editorial in the *Lancet* early in March commented on China’s early response to the epidemic, noting success in suppressing infections rested, “largely with a strong administrative system that it can mobilise (sic) in times of threat, combined with the ready agreement of the Chinese people to obey stringent public health procedures. Although other nations lack China’s command-and-control political economy, there are important lessons that presidents and prime ministers can learn from China’s experience. The signs are that those lessons have not been learned [10].”

In sum, Hu et al. do a good job at explaining the ways in which COVID-19 hospital-acquired infections can be reduced through the use of a three-pronged approach to block the chain of infection. However, to truly inform other health care professionals about processes that reduce virus transmission, an explanation of why those processes may be more successful in some places than others due to social and cultural context is necessary.

## Compliance with ethical standards

**Conflict of interest** On behalf of all authors, the corresponding author states that there is no conflict of interest.

**Ethical standards** Not applicable.

**Informed consent** Not applicable.

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