



## Touch in the era of the coronavirus pandemic

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I moved out of our shared bedroom of nearly 10 years on 22 March 2020. It was not a difficult decision because we have two young children and wondered what would happen if both of us became ill at the same time. As a Maternal and Fetal medicine physician in New York City, I was acutely aware of the coming coronavirus disease 2019 (COVID-19) crisis, and its potential ramifications on the health of my family, friends, patients and community. I am trained to function well in emergencies, and in this case, it was a quick and seemingly logical next step to sleep separately.

This decision also comes with an already-in-place full-scale decontamination effort that begins as soon as I enter our home. This involves minimising what jewellery, clothing, food and bags go back and forth between the hospital and my home, three shoe changes, stripping off my clothing, placing everything into the wash and then running to the shower. None of these choices were rooted in years of medical science, given the novelty of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the paucity of data on COVID-19. I used early data regarding transmission as well as anecdotal reports from friends in Asia who seemed to suggest that it was highly contagious and highly transmissible. There are a science and a history surrounding how pathogens have shaped human psychological adaptations. As we are forced to confront the long-standing evolutionary pressure of pathogen avoidance regarding what to eat and touch and who to be intimate with, it no longer feels theoretical.<sup>1</sup>

Looking back at what I have gained and what I am missing over this last month, I am acutely aware of how much less we are touching as a family and in my medical practice, and I miss it. As I say goodnight to my family and retreat to our windowless den, I am both thankful for a place to sleep that is near enough to be able to peek at their beautiful sleeping faces, and sad that I feel less at ease hugging or kissing them. Every healthcare worker on the front-line of this crisis has drawn different boundaries (some more or less extreme); my decision to

sleep in a separate room, create a decontamination routine and be less physically affectionate with my children was the only way I could feel in control in an uncontrollable situation.

Medical professionals know that touch, rooted in the amygdala of the brain, cannot be separated from the expression of empathy and solidarity that it provides.<sup>2</sup> In medicine, touch has long been hypothesised to have an impact on health and development over our lifespan. Dr Cascio and her team at the Vanderbilt Kennedy Center for Human Development describe social touch as ‘a powerful force in human development, shaping social reward, attachment, cognitive, communication and emotional regulation from infancy and throughout life.’<sup>3</sup> Many of the babies of the mothers I care for will begin their lives in the Neonatal Intensive Care Unit where the science surrounding touch as part of health care is widely accepted and engrained in the culture. Skin-to-skin and kangaroo care, the act of carrying your child in a pouch-like device, have been shown to improve breastfeeding, bonding and neurocognitive development.<sup>4,5</sup> In fact, the World Health Organization currently has an ongoing international trial looking at the benefits of kangaroo care initiated immediately after birth on survival of low-birthweight infants.<sup>6</sup> Later in life, touch, relationship quality and intimacy continue to drive good health and have been associated with improved cognitive function in the Rotterdam Study<sup>7,8</sup> and with improved cardiovascular outcomes in the National Social Life Health and Aging Project.<sup>8</sup> Their findings suggest that physical touch may have positive health implications for older adults.

Before the pandemic, physicians were already sounding alarms about the loss of medical touch in modern medicine. In a 2011 TED talk\* with over 1.7 million views,

\*TED is a nonpartisan nonprofit devoted to spreading ideas, usually in the form of short, powerful talks. TED began in 1984 as a conference where Technology, Entertainment and Design converged, and today covers almost all topics — from science to business to global issues — in more than 110 languages

renowned author and physician Abraham Verghese discussed the power of physician touch and the physical examination as he tried to revive the culture of bedside medicine.<sup>9</sup> With this pandemic, all of that has changed. We are all exceedingly careful to prevent transmission and yet try to provide care and solace in new ways. At the bedside, a gloved hand continues to provide care and comfort. I am happily finding ways to connect with patients through smiling eyes behind a mask, and jokes or phrases that now replace touch. I find myself more commonly expressing words of empathy in telemedicine visits to fill in for the gaps that touch might have provided before. I ask many, many questions to understand symptoms if I cannot see the patient in person. Due to the surrounding events, I am undertaking the fulfilling process of learning a new skill in medicine, to express my emotions on a screen and affect patients' lives in ways similar to that of an in-person visit.

As we raise our family in this time of pandemic, I am thankful that my husband is doing 'double-duty' in the realm of hugging and kissing, and has always been a physically affectionate father to our children. I try to tell them how much I love them with greater frequency and despite the concerted effort there are days when it is almost impossible to share our apartment without being physically close. The psychological impact this crisis will have on them is yet to be determined. I hope time will find them healthy, more resilient and grateful at the end of this journey.

But tonight, as they sleep soundly in their beds for another night, I am still saddened that I am not doing the usual kissing and hugging as I tuck them into bed, and it feels like a true loss, among the many others. I am not sleeping as soundly these days for a multitude of reasons including the guest bed, the strangeness of being alone after so many years, and the exponential rise in screen time for work and media consumption. I am truly hopeful we will return to a time when we can more freely touch and care for the people we love and the patients we value so much. In the simplest of internet searches, touch has so many definitions. Touch can mean to be in close contact, but it can also mean to affect.<sup>10</sup> COVID-19 has affected us in innumerable ways, and as healthcare workers navigate a post-COVID-19 landscape, I am hopeful that we can continue to innovate and find safe ways to incorporate medical touch into a practice that will be forever changed.

### Disclosure of interests

None declared. A completed disclosure of interests form is available to view online as supporting information.

### Contribution to authorship

This work was wholly conceived of, planned and written by SML as a reflection on her state and feelings after a month of living as a healthcare worker during the COVID-19 pandemic.

### Details of ethics approval

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