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Facemasks as a COVID-19 barrier: a window into the overlooked experience of chronic dyspnoea?



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Published Online
October 23, 2020
[https://doi.org/10.1016/S2213-2600\(20\)30512-9](https://doi.org/10.1016/S2213-2600(20)30512-9)

For more on **facemask use** see
<https://apps.who.int/iris/handle/10665/332293>

For more on **sociological effects of wearing facemasks** see
J Am Geriatr Soc 2020; **68**: E12–13

For more on the **experience of breathlessness** see <http://www.sunypress.edu/p-6557-atmospheres-of-breathing.aspx>

For more on **chronic breathlessness** see *Eur Respir J* 2017; **49**: 1602277

For more on **persistent dyspnoea** see *Eur Respir J* 2017; **50**: 1701159

For more on **observing dyspnoea** see *Eur Respir J* 2018; **51**: 1702682

For more on **human rights and breathlessness** see *Eur Respir J* 2017; **49**: 1602099

For more on a **patient's perspective of dyspnoea** see *BMJ Open Respir Res* 2020; published online March 12. DOI:10.1136/bmjresp-2019-000493

For the **study from Lansing and colleagues** see *Respir Physiol Neurobiol* 2009; **167**: 53–60

The COVID-19 pandemic has resulted in the widespread use of facemasks globally. Facemasks contribute to the protection against contamination of the people wearing them and those in close proximity, and they also protect against the fear of contamination. Wearing facemasks is, however, associated with a series of material constraints: you have to think about the mask, to have it with you, to pay for it, to change it, or to wash it frequently. Facemasks are also associated with marked sociological inconveniences, obstructing verbal communication (eg, muffled voice, invisible lip movements) and hindering non-verbal communication by making facial expressions hard to read. Facemasks can also be uncomfortable to wear. Primarily, being slightly resistive to airflow and a possible source of carbon dioxide rebreathing, they change our relationship with our own breathing. We suddenly become consciously aware of our respirations, and many of us find this unsettling. What if there was a sociological upside to this particular consequence of wearing protective masks? What if this could make us more attentive to the predicament of patients with chronic breathing problems?

Ordinarily, the continual neural bombardment from respiratory-related afferents that our brain receives is fully gated out, and, once passed the trial of our very first breath, breathing comes naturally and we are not consciously aware of it, even when it is disturbed by mild exercise or speech.

But disease-related alterations of the respiratory system arising from lung, heart, or neuromuscular abnormalities can put an end to this so-called respiratory felicity. These alterations can result in breathing becoming faster, shallower, laboured, noisy, or associated with the abnormal use of certain muscles. Most importantly, they can result in dyspnoea, namely breathing becoming a conscious act (sensory dimension) and an emotionally disturbing one (affective dimension). This multidimensional negative respiratory experience, of which the felt intensity can be disconnected from the extent of the underlying respiratory abnormalities, is a symptom—an alarm signal. But beyond that, it is a life-altering existential experience, with psychological, behavioural, and social consequences. This is especially true when dyspnoea cannot be improved by treatments to correct its causative pathophysiological abnormalities, a situation termed chronic breathlessness or persistent dyspnoea. In such cases, the ever-present awareness of breathing becomes a permanent threat, a permanent reminder of impending mortality. The impact of dyspnoea on the lives of those affected is further aggravated by the invisibility that unfortunately characterises the experience. Even though

observing acute dyspnoea in others is associated with negative feelings, dyspnoea is not only under-diagnosed and associated with delayed diagnosis but also under-evaluated, under-addressed, and often associated with an apparent lack of empathy from others. This invisibility impedes access to appropriate care and raises a human rights issue. It is explained, in part, by the disconnection of the dyspnoeic experience lived by the patients from the respiratory measurements performed by physicians. Also, the experience of dyspnoea, with the inherent sense of powerlessness that accompanies it, is not one that is universal, in contrast with pain and other common discomforts that everybody has experienced and can easily empathise with. Not having lived with dyspnoea presumably limits the ability of others to sympathise and empathise with patients, which probably goes some way to explain avoidance behaviours that are sometimes observed in persons confronted with dyspnoeic patients, and sometimes even in caregivers.

Patients are well aware of the invisibility of dyspnoea, and remarks such as, “They should have doctors experience these symptoms, especially dyspnoea, so they understand what patients are going through” are not uncommon. Yet, the experiential learning theory suggests that personally experiencing dyspnoea could be useful in changing one’s perception of it. This has not been formally studied, but is supported by anecdotal evidence. Similarly, Robert Lansing and colleagues report the post-hoc verbatim of a healthy person submitted to an air hunger inducing experiment: “If I felt I had to live my life feeling like that, I would jump out of the window”. Submitted for the first time to a similar type of experiment, one of us (AG), a respiratory intensivist, exclaimed that he would “never again tell an agitated [dyspnoeic] mechanically ventilated patient to calm down”.

So, wearing a facemask to fight the circulation of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) makes breathing a conscious experience that can be unsettling or oppressive. This dyspnoea is mild at rest and is in no way comparable to patients’ experiences. However, it can become sufficiently disturbing—when climbing stairs, when talking while walking, when in confined or crowded spaces, or in reaction to heightened emotional states—for people to seek respiratory relief by removing their masks, at the price of transgressing hygiene recommendations. This amounts to regaining control, an option not available to dyspnoeic patients, and illustrates the truly dyspnoeic effect of face masks.

We submit that the respiratory discomfort induced by facemasks could be considered as a form of mass

experiential learning liable to bring a great many people to discover the overlooked existential experience of dyspnoeic patients. We believe that this offers a unique opportunity to raise public awareness of what it means to be constantly aware of, and bothered by, one's own breathing. This phenomenon could be leveraged by foundations and charities that promote lung health or by teams engaged in the field of disability studies as a communication tool about the dyspnoeic experience that is lived by patients afflicted by chronic respiratory diseases, to, in the end, achieve better levels of comprehension and empathy. Meanwhile, let us have a thought for these patients when breathing through a facemask bothers us.

TS reports personal fees from AstraZeneca France, Boehringer Ingelheim France, GSK France, TEVA France, Chiesi France, Lungpacer Inc, ADEP Assistance,

personal fees and non-financial support from Novartis France, and grants from Air Liquide Medical Systems, outside of the submitted work. All other authors declare no competing interests.

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Juntos en la pandemia de COVID-19 (together in the COVID-19 pandemic): health-care professionals and the Latinx community



The burden of illness from COVID-19 is strikingly disproportionate among racial and ethnic minorities in the USA. This disparity is well illustrated in Latinx populations, who bear 2.8 times the number of cases and 4.6 times the age-adjusted hospitalisation rate from COVID-19 compared with non-Hispanic whites. As health-care professionals caring for Latinx patients affected by COVID-19, we share here what we have learned and highlight critical considerations for the health-care system and community during the ongoing pandemic.

The first line of defense for COVID-19 care is infection prevention. For Latinx immigrants, a number of factors pose challenges to prevention. The lack of language-concordant care, and in particular the lack of reliable and consistent public health information in Spanish, potentially delays critical messaging at a time when recognition of symptoms and precaution application is vital to reduce transmission. The development and dissemination of public health messages related to COVID-19 in Spanish is critical to COVID-19 prevention among Latinx with limited English proficiency. A well established model of care is to leverage the expertise of promotoras, or bilingual and bicultural community health workers trusted by the community. This model includes active linguistic and culturally tailored community outreach by medical professionals and via partnerships with community leaders. Use of bilingual contact tracers might also help build trust within Latinx communities and reduce viral spread when cases are identified.

Even with optimal dissemination of information, social, economic, and political factors, specifically housing and

employment, make it difficult to follow infection control recommendations. Congregate housing is common, and 25% of the Latinx population live in multigenerational housing, compared with 15% of non-Hispanic whites, making self-isolation more difficult. Financial pressures and the absence of paid sick leave or disability benefits might directly conflict with the need to quarantine or isolate. Additionally, Latinx might serve in frontline jobs that cannot be done via telework and require in-person attendance of all staff, worsening COVID-19 occupational hazards (eg, COVID-19 outbreaks in meat or poultry processing facilities). Provision of alternate housing solutions in the setting of infection might reduce community and household spread but requires proactive reassurance of altruism without repercussion to the individual (eg, revealed immigration status). Resources to maintain finances and employment status during illness are essential but not uniformly available. Many immigrants work in informal economies where paid sick leave is not provided, and undocumented immigrants (vulnerable to work exploitation) are not eligible for unemployment benefits or stimulus checks. State and federal provisions must be strengthened to ensure occupational health protections and adequate personal protective equipment provision is enforced, with resources for employers to institute safe practices for all workers in all work environments.

The proportion of people uninsured is higher among Latinx than among any other racial or ethnic group in the USA. Undocumented immigrants are excluded from the Affordable Care Act, often leaving them

Published Online
October 30, 2020
[https://doi.org/10.1016/S2213-2600\(20\)30519-1](https://doi.org/10.1016/S2213-2600(20)30519-1)

For more on **COVID-19 in the USA** see <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html>

For more on **COVID-19 hospitalisation data in the USA** see <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>

For more on reaching the **Hispanic community about COVID-19** see https://www.cdc.gov/pcd/issues/2020/20_0165.html

For more on **COVID-19 in Spanish** see <https://www.hopkinsmedicine.org/coronavirus/espanol/index.html>

For more on **bilingual community health workers (promotores)** see <https://www.cdc.gov/minorityhealth/promotores/index.html>

For more on **multigenerational households** see <https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/>