

Title:

Smiles from Behind a Mask

Authors:

Bridger M. Rodoni, BS¹, David P. Fessell, MD²

Affiliations:

¹University of Michigan Medical School, Ann Arbor, MI, USA

²University of Michigan Health System, Department of Radiology, Ann Arbor, MI, USA

Corresponding author:

Bridger M. Rodoni

MD/MBA Candidate

University of Michigan Medical School

Stephen M. Ross School of Business

1301 Catherine St.

Ann Arbor, MI 48109

bmrodoni@med.umich.edu

Phone: 480-710-7366

Running Title:

Seeing & Hearing the Benefits

Keywords:

Smiling, COVID-19, Influencing Teams

Article Type:

Reflection

This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the [Version of Record](#). Please cite this article as [doi: 10.1111/ACEM.14207](https://doi.org/10.1111/ACEM.14207)

This article is protected by copyright. All rights reserved

Manuscript word count:

573

Prior Presentations:

None

Funding Sources/Disclosures:

This article was completed without external funding. The authors have no conflicts of interest to disclose.

Acknowledgements:

None

Author Manuscript

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

MR. BRIDGER RODONI (Orcid ID : 0000-0002-0889-3670)

Article type : Reflection

As I entered the emergency room bay, her scared eyes shouted silently. An elderly female in obvious distress, she was non-verbal except for head nods. No family accompanied her. As a medical student, I felt clinically powerless, but I knew I wanted to assist however possible. As an extrovert, it was natural for me to think in terms of a human connection. I navigated through the crowded room, hearing conversations of suspected infection, and positioned myself at the bedside. As our eyes met, I fully received her unspoken message: sheer terror. She started to reach up from her bed. I offered my hand, shrouded in plastic. She took it and held my gaze. I smiled from behind my mask and told her she was safe. As she relaxed into the bed, something about her eyes told me she was smiling back.

A simple smile seemed to help this elderly woman. Is this just an anecdote, or is there more to smiling that can be of benefit? As my mentor and I dug into the literature on smiling, our eyes widened, and our mouths opened beneath our masks—definite signs of surprise.

Increasingly, data connects a genuine smile to both physical and psychological well-being.^{1,2,3} Neuroimaging studies suggest that spontaneous smiles, and even some voluntary smiles, can be associated with the activation of brain regions linked to positive emotional states.⁴ When we smile, we give a gift not only to others but also to ourselves.

Research also confirms that the typical response to seeing a smile is to smile in return.³ As the elderly woman in the E.D. demonstrated, when patients see a provider who smiles at them, it decreases their anxiety, and increases trust.³ When a provider smiles, it can also increase patient’s memory of what the provider discussed, allowing patients to better contribute to their own health.³

29 Our intuition, as well as research, tells us that smiles can be genuine or forced. In this
30 era of masks, it's reassuring that the main clues distinguishing genuine or forced smiles involve
31 muscles beyond the mouth or lips. Only a genuine, or Duchenne smile, also involves contraction
32 of the obicularis oculi and pars lateralis muscles, raising the cheeks and forming crow's feet
33 around the eyes.^{3,4} Even with masks on, others can perceive and receive the benefits of a
34 genuine smile.

35 Interestingly, just as we can see a smile around the eyes of a masked face, we can hear a
36 smile as well. Research indicates that the sounds of words spoken with a smile are
37 automatically associated with positive emotions. In fact, smiling can lead to changes in voice
38 that are recognizable in as little as one word.⁵

39 In this time of increased virtual interactions, our ability to cultivate and maintain
40 supportive relationships is paramount. We're tuning into the impact of our smiles and
41 expressions during video calls; here we have a built-in opportunity to continually monitor our
42 facial expressions and spread the benefits of smiling.

43 For the foreseeable future, in person encounters will continue to require masks.
44 Meanwhile, it's reassuring to know that our smiles can be seen, felt, and heard. As we improve
45 our happiness and well-being, we also increase our willingness to help others.³ Reflecting on
46 the physical, psychological, and social benefits of smiles, we're noticing a big and very genuine
47 smile spreading across our faces. So, go ahead—share your smile. You'll enjoy the benefits, and
48 so will those you serve, and love.

49
50 References:

51 1. Pressman, SD, Jenkins, BN, & Moskowitz, JT. Positive Affect and Health: What Do We Know
52 and Where Next Should We Go? *Annu Rev Psychol* 2019; 70: 627–650.

53 2. Hernandez, R, Bassett, SM, Boughton, SW, Schuette, SA, Shiu EW, & Moskowitz JT.
54 Psychological Well-Being and Physical Health: Associations, Mechanisms and Future Directions.
55 *Emotion Review* 2018; 10: 18-29

- 56 3. Beamish, AJ, Foster, JJ, Edwards, H, & Olbers, T. What's in a smile? A review of the benefits of
57 a clinician's smile. *Postgrad Med J* 2019; 95: 91-5
- 58 4. Frank, MG, & Ekman, P. Physiological Effects of The Smile. *Directions in Psychiatry* 1996; 16:
59 1-8.
- 60 5. Tartter, VC. Happy talk: Perceptual and acoustic effects of smiling on speech. *Perception &*
61 *Psychophysics* 1980; 27: 24-7.

Author Manuscript