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Scabs Versus Scars: Understanding the Impact of Coronavirus Disease 2019 (COVID-19) on Short- and Long-Term Behaviors

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INTRODUCTION

As a society, we made drastic changes to our daily routines to combat the coronavirus disease 2019 (COVID-19) pandemic. Although some of these changes may be temporary, like scabs that will gradually fade away, other changes may become permanent, like scars that forever change how we behave. Although we will not know for some time which behaviors will be scabs as opposed to scars, it is important to recognize which behaviors were already evolving that COVID-19 simply expedited rather than created. In this article, we will explore which behaviors may be scabs and which ones may be scars.

Although many are quick to cite COVID-19, plenty of consumer behaviors were already trending toward change. Retail has been undergoing a revolution during the last few years characterized by brands working to determine what physical shopping experience should deliver to meet changing consumer demands, while investing in online e-commerce strategies to maximize consumer dollars. As e-commerce continues to proliferate across platforms both established (eg, retailers like Macy's [New York, New York], Walmart [Bentonville, Arkansas]) and emerging (eg, Amazon Prime [Amazon, Inc, Seattle, Washington], Instacart [San Francisco,

California]), many of us have become accustomed to online purchasing. However, there were plenty of holdouts who prefer the in-person shopping experience. With the COVID-19 pandemic necessitating social distancing, many of these holdouts felt the pressure to start shopping online because of health and safety concerns. Many of those consumer holdouts will likely continue to shop online post-COVID-19, recognizing that their previous concerns were unwarranted, changing the long-term retail and commerce landscape. You can credit COVID-19; however, this was most likely an inevitable shift that was simply expedited by COVID-19 rather than created by it.

Similar to delivery of physical goods, there was also significant increase in demand for telemedicine, which has been galvanized by COVID-19. Pre-COVID-19, telemedicine was predominantly a “nice to have” feature used to provide care for patients in remote locations. Now, with many people sheltering in place, telemedicine has become a “must have” feature so that health care providers can appropriately triage sick patients and to prevent potentially contagious patients from spreading the infection to other patients and clinic staff. The United States Department of Health and Human Services has

temporarily relaxed the enforcement of regulations surrounding the HIPAA compliance techniques for telemedicine [1]. It is unclear whether such relaxed enforcement will become permanent, but increased demand for telemedicine as a triage tool or management of relatively simple problems may persist after the pandemic. Health care disruption led by companies outside the traditional health care domain will likely be accelerated. Amazon offers telemedicine and mobile care service capable of collecting laboratory samples and administering vaccines to its employees. UberHealth (San Francisco, California) enables users to request on-demand influenza vaccines. These consumer-centered health care delivery offers more convenience and flexibility than traditional physicians' offices and will likely take over a larger market share of ambulatory care in the post-COVID-19 era.

The contagious nature of COVID-19 has heightened awareness of the importance of personal hygiene and turned many ordinary people into “germophobes.” Touch screens, hailed as a key component to future smart cities, have been increasingly deployed and integrated to everyday parts of life. In pre-COVID-19 era, we routinely touched these surfaces, most of which

are rarely or never cleaned. These days, many of us are reluctant to touch these public surfaces, which potentially represent reservoirs of microbes. These behavioral changes may persist after the pandemic and may encourage the use of voice-based technologies that do not require any physical touch, as well as other nontouch emerging technologies such as biometrics. The rise of biometrics raises concerns for increased tracking ability by individual companies and the government and can exacerbate underlying structural inequities. Developers must improve security measures to prevent breaches and loss of privacy.

Many major theme parks have been closed, and concerts, sporting events, and conventions have been canceled. Many major brands are providing online versions of experiences, such as virtual theme park rides, virtual concerts, and online education modules. Others are finding ways to do so at safe distances, resulting in resurgence of drive-in movie theaters or parking lot in-car concerts. The key to success is understanding the consumer-driven insight of why people enjoyed attending those types of events and experiences and then determining which technologies and platforms can help deliver digital or virtual versions of those emotional quotient (EQ)-driven experiences. Companies will learn by trial and error and by actively soliciting consumer feedback. As restrictions on public gatherings are relaxed, companies may benefit from incorporating successful elements of the virtual experiences into the live experience, recognizing that many will no longer feel comfortable in large crowds or gatherings as their behaviors scab or scar.

In the end, one thing remains the same: Consumers do not seek new technologies, they seek solutions. Nobody wakes up looking to invest in technology like a smartwatch or a

smartphone; they wake up seeking ways to track their health or access content like streaming video. Technology is simply the tool utilized to implement the solution to the consumer's problem or need. As the COVID-19 pandemic and its aftermath create new challenges, companies will need to devise creative solutions that will meet their clients' needs. The key is to design to desired solution-based offerings first, then determine which tools, technologies, or platforms are needed to bring that solution to life in ways that provide true utility to consumers.

KEY POINTS AND LESSONS FOR RADIOLOGY

COVID-19 has forced an unprecedented rate of change in our health care delivery, and it remains unknown how much of this change will be temporary (scab) or permanent (scar). Radiology departments across the country have made substantial changes to their clinical and education workflows, which have been described previously [2-5]. We will focus on how changes accelerated by the COVID-19 pandemic are likely to affect our CME and society meetings in the near future. When we perform our essential functions as health care providers, we are willing to accept a small level of risk of exposure. However, when we attend CME and society meetings, we behave more like consumers rather than providers and have significantly lower risk tolerance.

Conferences are designed to cram people into tight spaces to maximize social engagement and can be perfect breeding grounds for infectious diseases. For example, March 2020 Biogen health care conference in Boston, Massachusetts, was a source of COVID-19 outbreak that had sickened more than 100 people across the

country [6]. Accordingly, many CME and society meetings have been canceled or changed to an online-only format until the end of 2020. Several academic institutions are also actively discouraging or prohibiting their faculty from traveling. The long-term effects will likely depend on the intended audience and goals of the meetings and will have a different impact on CME courses and society meetings.

Many CME courses sponsored by major academic institutions attract radiologists from private practice. Attendance at many CME courses has declined in recent years because of the increased availability of online CME options [7] and decreased availability in clinical practice funds or nonclinical days reserved for meetings. Nowadays, radiologists can obtain the required CME credits online on demand at a fraction of the cost of an in-person CME course. Because these CME courses can be delivered through the online format without significant compromise in the educational value, we speculate that many of these in-person education-focused CME courses may not survive the COVID-19 pandemic and may turn into online-only format.

On the other hand, society meetings are the platform for dissemination of latest scientific breakthroughs and professional networking. Their main intended audience is faculty and trainees from academic institutions. The professional networking and scientific exchange that occur at society meetings require more simultaneous interaction among the meeting participants, which may be more difficult to simulate in an online only format. Therefore, there may remain a demand for physical society meetings after the pandemic subsides. Even after it becomes reasonably safe to gather again, meeting organizers

should be deliberate in planning the meeting agenda and physical space to avoid crowding. They will have to use larger conference rooms at lower capacity with longer breaks in between sessions for crowd control. Buffet-style food and beverages should be replaced by prepackaged meals to reduce cross-contamination. During this current season of virtual meetings, meeting organizers should promote the use of social media [8] to increase engagement among meeting participants. These social media platforms are designed to encourage interactions among people with similar background and interests and can serve as forums for scientific discussions and professional networking.

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