Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Understanding the effects of COVID-19 on the health and safety of immigrant hospitality workers in the United States

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ABSTRACT

The U.S. tourism and hospitality workforce is disproportionately represented by immigrants and minorities, particularly in low-wage jobs with adverse work conditions. Immigrant hotel and foodservice workers face excess chronic stress and related syndemic risks, exacerbated by social, political, and economic inequities. COVID-19 has suddenly intensified the stressful and already difficult circumstances of immigrant service sector workers. The travel and tourism sector is one of the hardest hit due to widespread travel restrictions and shelter-in-place orders designed to curb infection spread. Restrictions and lockdowns have devastated tourism-dependent destinations and displaced millions of vulnerable workers, causing them to lose their livelihoods. Compared to the general workforce, a sizeable increase in occupational stress has already been observed in the hospitality/tourism sector over the past 15–20 years. COVID-19 and related fears add further strains on immigrant hotel and foodservice workers, potentially exerting a significant toll on mental and physical health and safety.

1. Introduction

In 2019, there were 28.4 million foreign-born workers in the U.S., who comprised 17.4% of the total workforce (BLS, 2020a). The majority of these immigrants work in service or blue-collar occupations (e.g., agriculture, cleaning, construction) (Blanco, 2017) and of these, a significant proportion are undocumented[1] (Kamarck & Stenglein, 2019). The workforce of the hospitality sector in the U.S., in particular, is disproportionately represented by immigrants and minorities, particularly in low-wage front line jobs in hotels and restaurants, characterized by adverse work conditions (Vogt, 2003). Overall, minorities are represented in over 60% of U.S. hotel and foodservice jobs (NCLR, 2011), and Hispanics represent over a quarter of total employed in this sector (BLS, 2020a; Murray & Gibbons, 2007). Immigrant workers in hotel and foodservice jobs experience significant social and economic strains and disparities (Sönmez, Apostolopoulos, Lemke, Hsieh, & Karwowski, 2017), which induce elevated health and safety risks and subject the workers to a disproportionate burden of disease and injury compared to non-immigrants (Burgel, White, Gillen, & Krause, 2010; Edberg, Cleary, & Vyas, 2011). Immigrant hotel and foodservice workers face excess levels of chronic stress and related syndemic[2] risks (Lancet, 2017) that are exacerbated by inequities associated with social, political, economic, and environmental conditions in which these vulnerable populations are immersed (Jauch et al., 2013).

The coronavirus (COVID-19) pandemic has suddenly intensified the stressful and already difficult circumstances of immigrant service sector workers. The widespread shelter-in-place orders designed to curb infection spread have displaced millions of workers, causing them to lose their livelihoods. The U.S. unemployment has soared to 14.7%—the highest since the Great Depression in 1929–1933—with the leisure and hospitality industry reporting an unemployment rate of 39.3% (BLS, 2020b). The social and economic impacts of the pandemic are likely to reverberate for years to come.

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[1] Both terms of "illegal immigrant" and "undocumented immigrant" refer to immigrants without the legal right to work or live in the U.S.; however, the "immigrant nomenclature debate" continues (Kashyap, 2015). Immigrant advocacy groups prefer terms such as "undocumented," "unauthorized," "without status," or "unlawfully present" and oppose "illegal immigrant" on the grounds that it connotes criminality.

[2] A syndemic is a population-level clustering of social and health problems, created and exacerbated by macro-level forces, that involves two or more afflictions (e.g., cardiovascular disease and diabetes) that interact synergistically and contribute to excess burden of disease. To control a syndemic, one must simultaneously address not only each affliction but also the interacting contextual and social forces that tie those afflictions together (e.g., stress, unhealthy diet, poverty) (Mendenhall, 2017; Singer et al., 2017).

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2. The toll of COVID-19 on the tourism and hospitality industry

Key global responses to the spreading COVID-19 pandemic have included travel restrictions and shelter-in-place orders. Most countries around the world have imposed partial or complete border closures, with travel bans affecting 93% of the world's population (Connor, 2020). With millions suddenly unemployed, uncertainty over economic recovery, global fears of continuing COVID-19 spread—the world travel and tourism industry is among the hardest hit (Tappe & Luhby, 2020). An 82% decline in air travel demand in the first quarter of 2020 and 4.5 million flight cancellations have already caused a 55% drop in revenues ($314 billion) for the international airline industry before the end of May 2020 (IATA, 2020).

The accommodations sector has been similarly devastated by the restrictions and lockdowns. In the U.S. alone, hotels have lost over $13 billion in room revenues since public health concerns began to escalate in mid-February 2020 and are further predicted to lose over $500 million in room revenues per day ($3.5 billion per week), based on current reported occupancy rates (AHLA, 2020). The U.S. GDP is predicted to take a $300 billion hit if general hotel occupancy rates decline by 30% (AHLA, 2020). As of April 15, 2020, eight out of 10 hotel rooms remain empty across the country (Asmelash & Cooper, 2020; STR, 2020). According to the American Hotel and Lodging Association, major hotel managers are reporting significant furloughs and layoffs, indicating a loss of nearly four million jobs that have been or will be eliminated in the coming weeks (Wiley, 2020). Further, the 70% of hotel employees being laid off or furloughed represents an estimated loss of over $2.4 billion in weekly earnings.

One million restaurants—the second largest private sector employer group in the U.S.—employing 15.6 million workers is estimated to lose over eight million restaurant and foodservice jobs from COVID-19 related closures (NRA, 2020). Restaurants and bars account for 60% of jobs (419,000) cut in March 2020 (BLS, 2020b). Economic losses are expected to reach $225 billion between March and May of 2020 alone, despite efforts to convert some of their services to pick-up and delivery options to stay afloat (NRA, 2020).

Tourism and hospitality researchers are beginning to tally the economic devastation from COVID-19, populating online fora (e.g., Trinet) with discussions of how the pandemic will change travel; how it will impact destinations, various stakeholders, and tourist behaviors; and how tourism scholarship should respond. Little is said, however, about the millions of immigrant and minority workers in the industry, who are medically underserved,[3] disproportionally exposed to prolonged health and safety strains, and have limited resources to weather protracted hardships. Compared to the general workforce (O'Neill & Davis, 2011), a sizeable increase in occupational stress has already been observed in the hospitality/tourism sector over the past 15–20 years (Karatepe & Tizabi, 2011; Ross, 2005; Wu, 2008). COVID-19 and related fears add further strains on immigrant hotel and foodservice workers, potentially exerting a significant toll on their mental and physical health and safety.

3. Stress, allostatic load, and syndemic risk of immigrant hospitality workers

Because immigrant workers are overrepresented in lower socioeconomic strata (Edberg et al., 2010), they are typically in the lower range of skill and income distributions and are forced to accept undesirable and low-status jobs (Rivera-Batiz, 1999; Schenker, 2010). About half of the immigrants in the U.S. work in service or blue-collar occupations (Ahonen, Benavides, & Benach, 2007), a large proportion of whom are undocumented (Brown, Mott, & Malecki, 2007; Ennis, Ríos-Vargas, & Albert, 2011; Rivera-Batiz, 1999). Compared with 31% of native-born U.S. workers (NCLR, 2011), over half of undocumented immigrant workers are concentrated in three sectors: 22% in business services (e.g., landscaping, waste management) (NCLR, 2011), 18% in hospitality/tourism [which accounts for over 14.3 million jobs in U.S. (BLS, 2020b)], and 16% in construction.

3.1. Living and work conditions of immigrant hotel and foodservice workers

Immigrant hotel and foodservice workers live and work under pronounced strains (Rugulies, Scherzer, & Krause, 2008). Their quality of life is inextricably linked to their economic circumstances, which often involve job, housing, food, and income insecurity and lack of, or limited access to affordable healthcare or health insurance. Further, they often live in housing located in economically depressed or dangerous neighborhoods and are unable to access social services (Hsieh, Apostolopoulos, Hatzudis, & Sönmez, 2014; Hsieh, Apostolopoulos, Hatzudis, & Sönmez, 2015; Hsieh, Apostolopoulos, & Sönmez, 2013; Hsieh, Apostolopoulos, & Sönmez, 2015; Hsieh, Sönmez, Apostolopoulos, & Lemke, 2017). These hardships, along with numerous familial, social, health, and legal problems, exacerbate overall levels of strain that lead to a chronic condition of acute stress (Feaster, Arah, & Krause, 2019; Gutierres, Saenz, & Green, 1994). Undocumented immigrants face added fears of separation from family members and deportation risks (McKanders, 2011).

These workers often endure difficult work conditions and experience disproportionate levels of workplace stress. Their immigration status, language barriers, and a number of interpersonal and organizational factors leave them particularly vulnerable to elevated occupational health and safety hazards (Briggs Jr, 2009; Buchanan et al., 2010; Premji & Krause, 2010). Interpersonal challenges in the workplace include ethnically biased work assignments as well as overt mistreatment and outright abuse. Organizational problems include the absence of a living wage (i.e., low pay), lack of overtime pay, and the absence of benefits such as health insurance (Briggs, 2009; Buchanan et al., 2010; Premji & Krause, 2010). Undocumented workers are particularly vulnerable to mistreatment and various types of abuse (Calnan, Wadsworth, May, Smith, & Wainwright, 2004; Poulston, 2008) because their status gives employers and supervisors a means to control, exploit, and intimidate workers into accepting dangerous work conditions (De Castro, Gee, & Takeuchi, 2010; Krause et al., 2002).

In the U.S. only immigrants with permanent residency cards (i.e., Green Cards) and certain types of visas can work lawfully. Temporary worker visas issued by the U.S. government include H−1B (specialty occupation, e.g., research and development), H−1B1 (requires post-secondary education), H-2A (temporary/seasonal agricultural workers), H−2B (temporary/seasonal, non-agricultural workers), and H-3 (special education visitors to acquire education unavailable in their home countries). A number of other temporary visas are issued to those with higher levels of education and professional achievement (e.g., artists, athletes) (USCIS, 2020). The H−2B visa program allows U.S. employers to hire foreign nationals during peak seasons—primarily for hospitality, recreation, landscaping, and seafood processing. Congress has set a H−2B visa cap of 66,000 per fiscal year (Maurer, 2018); about 40% of these visa holders work in landscaping, followed by 7.5% working as hotel housekeepers. It is not surprising that there is no reliable data on the number of undocumented immigrants working in the hospitality or any other industry.

Hotel workers experience constant time pressures (Chiang, Birtch, & Kwan, 2010; WorkCover, 2003) at work and rush to finish their assigned rooms, often jeopardizing their psychological wellbeing (Hsieh et al., 2013, 2014, 2017; Hsieh, Apostolopoulos, Hatzudis, & Sönmez, 2015; Hsieh, Apostolopoulos, & Sönmez, 2015; Liladrie, 2010; Lundberg & Karlsson, 2011; Poulston, 2008). They experience physical

[3] Individuals in the lower socioeconomics strata, who do not receive health insurance from their employers or who are unemployed or underemployed (less than 30–40 h per week) and are unable to afford private health insurance and therefore unable to pay for even routine medical care.

(e.g., musculoskeletal injuries); chemical (e.g., exposure to toxic cleaning solutions); biological (e.g., exposure to microbial contaminants); and psychosocial hazards (e.g., long/irregular hours (Gautie, 2010; Willemse, 2006), work-home conflict (Hsieh, Kline, & Pearson, 2008; Wong & Ko, 2009), job insecurity (Woo & Krause, 2003), and interpersonal conflict (Buchanan et al., 2010; Kim, 2008; Krause, Rugulies, & Maslach, 2010). Similarly, *foodservice workers* experience physical (e.g., burns from hot oils, repetitive motions leading to falls, sprains, cuts, contusions); chemical (e.g., carcinogens/mutagens found in fumes from foods prepared under high temperatures); biological (e.g., foodborne organisms); environmental (e.g., slippery floors, tobacco smoke); and psychosocial hazards (e.g., work stress, time pressures) (Tsai & Salazar, 2007). The combination of these life and work stressors aggravate already strained mental and physical health and create a vicious cycle of stress for these workers.

3.2. Impacts of chronic stress on the health and safety of immigrant hotel and foodservice workers

The cumulative effects of elevated levels of stress over time have increasingly been linked with *allostatic load*—a summary measure of physiological "wear and tear" the body experiences during repeated response to stress, intensified by unhealthy behaviors or conditions (e.g., smoking; social isolation) (McEwen, 2004; McEwen & Stellar, 1993; Sorlie et al., 2014; Turner, 2016; Turner & Avison, 2003) resulting in pathology and chronic illness (Read & Grundy, 2012; Sun, Wang, Zhang, & Li, 2007). Long-term stress and resulting physiological dysregulations are known to depress the immune system (Taylor, Repetti, & Seeman, 1997) and help to explain how negative life and work conditions contribute to disease (Beckie, 2012; Seeman, Singer, Rowe, Horwitz, & McEwen, 1997). When allostatic load (AL) remains outside the range of normal values for prolonged periods, it can lead to comorbidity risks, such as cardiovascular disease, diabetes, autoimmune disorders, and even death (Bellingrath, Weigl, & Kudielka, 2009).

AL has been linked with adverse work conditions (Hasson, Von Thiele Schwarz, & Lindfors, 2009; Schnorpfeil et al., 2003; Sun et al., 2007), stressful work environments, and job insecurity (Beckie, 2012; Rose et al., 2017) as well as lower decision latitudes, higher job demands (Schnorpfeil et al., 2003), greater effort-reward imbalance, and vital exhaustion (Bellingrath et al., 2009; Feaster et al., 2019). Sustained exposure to such adverse conditions can trigger physiological, behavioral, emotional, or cognitive reactions leading to anxiety, depression, and burnout (Pienaar & Willemse, 2008) harmful coping mechanisms (e.g., substance misuse) (Rugulies et al., 2008), and other mental health problems (Burgel et al., 2010; Leka & Jain, 2010). The World Health Organization declared work-related stress as one of the biggest challenges of the 21st century (Houtman, Jettinghoff, & Cedillo, 2007), and recent empirical evidence supports that workers exposed to workplace stress have significantly higher AL than those working in settings with lower stress (Mauss, Jarczok, & Fischer, 2015).

Research focusing on AL of vulnerable populations (Chandola & Zhang, 2017; Rosemberg, Li, & Seng, 2017), such as immigrants (Doamekpor & Dinwiddie, 2015; Peek et al., 2010), reveals higher rates of AL and its associated health risks. Immigrant hotel and foodservice workers experience the foregoing on a regular basis due to the earlier noted life and work-related stresses. To date only small-scale empirical research has examined the causative role of chronic stress, AL accumulation, and its associated syndemic risks to the overall health of immigrant hotel and foodservice workers (Sönmez et al., 2017). Considering the chronic and acute stresses of hotel and foodservice workers—worsened by their sociopolitical and economic disparities—it can be surmised that these workers are at great risk for overweight/obesity, hyperlipidemia, hypertension, cardiovascular disease, stroke, and diabetes (Krause, 2015; Rosemberg et al., 2018).

4. Impacts of COVID-19 on immigrant hospitality worker health and safety

Millions of hotel and foodservice workers are experiencing stress levels that are higher than ever before, as laid off and furloughed workers bear the brunt of COVID-19. Some economists believe that this massive unemployment spike will be temporary and many jobs will come back, but also add that not all lost jobs will return and will depend on the course of the virus as well as the course of global economic recovery, which is particularly relevant for the global tourism and hospitality industry. Fears are expressed over the restarting of the economy in light of additional infectious disease risks until widespread testing and a proven safe vaccine for COVID-19 are available for the masses. As the COVID-19 pandemic continues to evolve, it is difficult to predict how the problems of industry shut-down and job losses will be resolved. The impacts of COVID-19 on society, the economy, and the tourism and hospitality industry (among many others) are severe. Different individuals are likely to react in their own unique way to the crisis. Employees who have lost their jobs, small business owners trying to survive while facing bankruptcy, large corporations recording historic losses are all experiencing the crisis situation in their own way and coping as well as they can. However, the situation is particularly dire for hospitality sector employees who have the weakest social safety net of all and in fact, in many cases have no net whatsoever. The heightened levels of stress are likely to have deleterious consequences on the mental and physical health of immigrant hotel and foodservice workers that may become evident in the coming months and into 2021.

Immigrant hotel and foodservice workers have been placed in the extremely difficult situation of navigating their lives and that of their families while worrying about their sudden income disruption, being laid off or furloughed, possibly facing long-term unemployment, having limited/no paid sick leave, having delayed or insufficient unemployment benefits, while being unable to pay basic needs (rent, food, utilities, debt, medical bills). The Coronavirus Aid, Relief, and Economic Security (CARES) Act, signed into law on March 27, 2020 provides $2 trillion in direct financial assistance (e.g., unemployment insurance benefits of $600/week) to those eligible. It is important to note that the millions of low-wage undocumented workers who most need assistance and who are keeping essential services running—such as delivering food or cleaning public spaces—are not eligible. It is estimated that there are between 10.5 and 12 million undocumented immigrants living in the U.S. (3.2% - 3.6% of the population) (Kamarck & Stenglein, 2019), with about 8% working in the service sector. Even if they pay taxes,[4] these workers are not eligible for stimulus checks because they do not have Social Security numbers—these exclusions impact both the immigrants themselves and their dependent families, including their U.S. Citizen children or spouses (Narea, 2020).

There are a number of other factors that add further strain to immigrant workers, such as heightened uncertainty and insecurity over their future (length of joblessness), absence of social support and isolation, and having limited or no health insurance or access to medical care during a period of widespread fear of COVID-19 (lack of testing, infection, sickness, death). Additionally, these workers may have underlying chronic health conditions and compromised immune systems that increase their vulnerability to COVID-19 infection, just as harmful coping mechanisms (i.e., alcohol/substance misuse) also might. Finally, shelter-in-place orders have confined families to their homes in potentially highly stressful dynamics including emotionally or psychologically strained relationships, child/elder care needs, crowded living

[4] Undocumented immigrants pay an average of $11.64 billion in state and local taxes annually, which represents approximately 8% of an individual's income that goes to taxes. It is estimated that immigrants (regardless of documentation status) will contribute approximately $80,000 more in taxes than government services they use over their lifetime (UnidosUS, 2020).

arrangements, and domestic abuse. The combination of all of the foregoing can create an untenable situation for these individuals and their families.

5. Conclusions

The COVID-19 pandemic has shined a harsh and unavoidable light on the nation's socioeconomic and occupational disparities, lack of protections for workers, and the absence of a much-needed social safety net in the event of a major national or personal crisis. As the entire world deals with the same crisis at once, the U.S. emerges as the only industrialized nation without universal health care and without paid sick leave across occupational segments. If there is any type of silver lining to the COVID-19 pandemic, it is the exposure of what needs to change at national and corporate levels to protect the millions of workers (and their families) across sectors who keep the nation's economic engine moving. Protecting the health and safety of millions of workers and meeting basic human needs are vital to the long-term sustainability of the national economy.

5.1. Public and corporate policy recommendations

Guided by syndemic frameworks (Singer, Bulled, Ostrach, & Mendenhall, 2017), addressing the social and structural factors that have led to the clustering of health and safety risks among immigrant hospitality workers is necessary to alleviate health and safety disparities. For example, establishing health care that is not dependent on one's employment, especially for these vulnerable populations whose employment is highly variable and vulnerable to external perturbations such as the COVID-19 pandemic, could help close the gap between these workers and other occupational segments. Such policies would protect those individuals who lose their jobs, are laid off, or are unable to work from either being deprived of medical care or from seeking care by risking personal bankruptcy. Federal[5] labor policies that provide mandated paid sick leave, mandated paid family leave/vacations, unemployment insurance, and other such protections can support workers and also protect the labor force from widespread disruptions. The global hotel industry exceeds $600 billion in annual revenues (the U.S. hotel industry reached $218 billion in revenues in 2018) and includes many multinational corporations, which employ millions of hotel workers (Lock, 2019). It is incumbent upon these corporations to provide benefits to their employees to cover basic needs (e.g., medical insurance, paid time off). While some corporations (e.g., Hilton, Marriott) offer these benefits because they view them as an investment in their employees, others do not. About 6.4 million people in the U.S. are working involuntarily part-time, with 54.3% of this figure accounted for by the leisure and hospitality industry between 2007 and 2015 (EPI, 2016). About 40% of employees in restaurants and bars work part-time (The Aspen Institute, 2011). Part-time employees have traditionally not received the same benefits or the same hourly wages that full-time employees are provided—in fact, part-time workers earn 19.8% less per hour than comparable full-time workers (EPI, 2020). While part-time employees are eligible for health insurance, federal law does not require employers to offer it to part-time employees—they can receive it only if their employer chooses to offer it to them. According to the Affordable Care Act (Obamacare), health insurance must be offered to employees working at least 30 h per week (HealthCare.gov, 2020)—many working fewer than 30 weekly hours, are ineligible. Offering basic benefits to part-time employees, not only helps to retain workers, but is also a sensible return on investment—as it can entitle organizations to tax deductions that can reduce their tax obligations (Connected Benefits, 2020). An appropriate mix of public and corporate policies can protect workers and provide them the needed security in times of hardship.

[5] In the U.S., political authority is shared by the federal (national) government, the governments of the 50 states and several commonwealths and territories, and local governments and their laws govern each of these. Federal laws apply throughout the U.S. and include immigration, social security, taxes, civil rights, and federal criminal law, among others. State laws include criminal matters, family matters, public assistance, real estate, business contracts, and workers' compensation, among others. Local laws cover zoning, local safety, and other matters for cities, counties, municipalities, towns, and villages (LawHelp.org, 2020).

5.2. Workplace policy recommendations to protect workers from COVID-19

Along with addressing those social and structural factors that shape immigrant hospitality workers' health and safety disparities, workplace-focused policies can be implemented within a relatively short timeframe. Because these employees, along with their fellow co-workers that work in other capacities across the tourism and hospitality industry have direct contact with others, their protection in the event of crises such as the COVID-19 pandemic represent focal risks—and opportunities—to control infectious disease acquisition and transmission. Particularly because these workers are front-line employees and the industry's backbone, worker-to-worker disease transmission in the workplace poses a serious threat to labor capacity. Particularly for those working in restaurants (e.g., food preparation, service) and hotels (e.g., housekeeping, guest services) with potential for exposure to infectious agents, personal protective equipment (e.g., gloves, masks) needs to be provided along with strategic scheduling that permits a level of social distancing at work if required by potential repeated waves of COVID-19 as predicted by medical professionals. The hospitality industry will need to implement effective safety protocols across the board, including aggressive measures to disinfect hotel rooms and restaurant seats after each use, as well as many other public spaces to protect workers and visitors alike. These workers are not only at risk for becoming infected with COVID-19, but also transmitting it to visitors, their own families, and anyone else they come in contact with. Further, given the potential for synergistic interaction between the detrimental physiological impacts of AL (Mocayar Marón, Ferder, Saraví, & Manucha, 2019) and the known risks of COVID-19 morbidity and mortality (Caramelo, Ferreira, & Oliveiros, 2020; Li et al., 2020; Zhou et al., 2020), these workers are especially vulnerable to severe outcomes should they become infected.

5.3. Research recommendations

Research attention is needed to better understand the work conditions of vulnerable immigrant hospitality sector workers, who have been neglected for the most part in tourism and hospitality scholarship. Areas of focus can include: occupational and health disparities; impacts of work conditions on mental and physical health; effective interventions to mitigate impacts of work-related stress; potential role of workers in acquiring and transmitting infectious diseases in the event of future COVID-19 waves or other re/emerging infectious diseases (e.g., various influenzas); policies to protect workers from health crises; endemic health and safety disparities of the population that may render them susceptible to COVID-19 infection, morbidity, and mortality; subsequent consequences of infectious disease for population and industry health; and critical links between worker health and the tourism and hospitality industry's economic sustainability. Significant funds are being funneled now to federal (e.g., NSF, NIH, USDOD, USDHHS) and state funding agencies, and being earmarked for COVID-19 related research by nonprofit organizations. There are countless opportunities for travel, tourism, and hospitality scholars to conduct transdisciplinary research with scholars in other relevant fields to better understand the impacts of public health emergencies on the industry.

Author contributions

Sevil Sönmez and Yorghos Apostolopoulos were principally

involved in the conceptualizing, writing, and revising of the manuscript. Mike Lemke and Yu-Chin (Jerrie) Hsieh each contributed to writing and revising the manuscript.

Declaration of Competing Interest

None.

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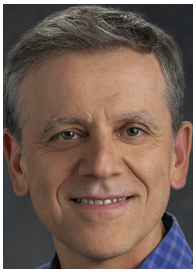

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