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## COVID-19 pandemic underlines the need to build resilience in commercial restaurants' food safety



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### ABSTRACT

In the face of the COVID-19 pandemic, the commercial restaurant sector is struggling to organize itself. Resilience is crucial for a system to be able to respond adequately to events of this magnitude, and is aimed at the recovery and adaptation of the concerned sector in view of the adversities. In the commercial restaurant sector, resilience efforts are primarily intended to protect the health of both those who consume food and those who produce it. Amid the creative initiatives of individuals within their workplaces, restaurants, even unconsciously, seek to build resilience in the pandemic by applying the food safety practices recommended by the sanitary legislation and remaining economically active. Targeting public health preparedness, in this letter, we present an overview of the stages of resilience and their interaction with the COVID-19 pandemic in the context of commercial restaurants.

Dear Editor,

The discussion on how to tackle the COVID-19 pandemic is becoming increasingly urgent. The restaurant sector deals with known and unknown hazards on a daily basis in terms of the risk posed by foodborne diseases (FBD). However, the responses to this risk are not always ideal, and FBD outbreaks occur frequently (Jones & Yackley, 2018; Hardstaff et al., 2018; Packer et al., 2020). Thus far, the transmission of SARS-CoV-2, which causes COVID-19, by food has not been evidenced; nonetheless, this does not absolve restaurants from adopting safety measures in the production of meals, so as to avoid overloading the public health system (FAO & NU.CEPAL, 2020). The restaurant sector has the duty to protect the health of its customers and workers by adopting both long-established practices as well as new practices that ensure food safety.

Given the current situation in the city of São Paulo/SP, the epicenter of the pandemic in Brazil, we decided to lend our voices and initiate a discussion alongside an orientation that could lead decision-makers to construct an active resilience plan to face the pandemic and future unexpected events. The National Academy of Sciences (NAS, 2012) defines resilience as “the ability to plan and prepare for, absorb, recover from, and adapt to adverse events.” Exploring these four stages individually can provide insights into how restaurants is responding to the pandemic in terms of the safety of food production and the health of the people involved, whether they are kitchen workers or customers.

During the process of building active resilience—understood by Martin (2019, p. 76) as “growing progressively tougher by learning from adversity and becoming better able to manage future stresses”—there is opportunity for restaurants to strengthen their operations in the midst of adversity and prepare to respond positively in similar future events.

This work will focus on the reality of commercial self-service and à la carte restaurants, with the understanding that the study of resilience will promote scientific advancements in the food-away-from-home sector.

### 1. Planning and preparation

The following are essential to the planning and preparation stage: frequent training on food safety, empowered and humanized leadership, adequate infrastructural apparatus, balanced interpersonal relationships, comfortable levels of temperature and noise, guaranteed labor rights, and a dignified work environment. In the context of FBD, before the pandemic, restaurants often presented disparities in relation to the presence of the factors mentioned above, and struggled to put sanitary legislation requirements into practice. Despite trainings on safe practices, the wide range of material made available by organizations in the sector, pertinent legislation, and health professionals guiding daily practices, establishments relied heavily on common sense knowledge about food safety (De Freitas, Da Cunha, & Stedefeldt, 2019). In this regard, there was a prior lack of preparation in terms of FBD risk, and it was in these circumstances that the pandemic took hold.

### 2. Absorption

We are currently in the absorption stage. A survey conducted in March by the National Association of Restaurants (ANR, 2020) indicates that 61.8% of the bars and restaurants had to lay off some of their employees estimating that between 600 and 800 thousand restaurant workers were laid off at the time. In addition, 53.2% of the surveyed companies reported that they experienced between 50% and 90% reduction in revenue compared to the same period last year (ANR, 2020).

One way of restaurants absorbing the impact of the pandemic and subsequent social isolation was the implementing of a delivery system. This new system forced restaurant owners, kitchen workers, and employees to reinvent their roles in order to adopt this new approach, which many were not adept before the pandemic. According to the ANR (2020), 36.14% of restaurants needed to make changes to meet these system demands. Adopting this strategy momentarily allowed restaurants to stay open and continue to employ many workers, while demanding a change in the food production, packaging, transportation,

and delivery practices, in accordance with the new rules for containing the SARS-CoV-2.

Independent and public organizations published a large amount of supporting material containing information on hygiene practices for deliveries, both for the employees carrying out the deliveries and the customers receiving the deliveries. These documents reminded restaurant workers of the safe practices recommended by sanitary legislation, specifically the safe reception, storage, and handling of food. This strategy of combining these two types of information proved essential at the time, since the stage of planning and preparing for resilience was not appropriately completed before the pandemic began.

Restaurant owners and employees had to adopt safe practices that they previously believed were impossible to implement. Moreover, employees who were not usually included in food safety training began to learn about hygiene and sanitation and had to put that knowledge into practice. A necessary behavioral change is taking place; however, it is worth questioning whether this change is based on solid knowledge built through efficient training that takes into account the limits and profile of workers and restaurants individually. Pertinent adjustments of training to social context determine the process of learning and implementing safe practices.

The media plays a significant role in making the public aware of hygiene measures specified by health authorities to help contain the pandemic. Together with customer demands for safe food, they have engendered changes in food production practices. Customers influence safety practices by purchasing only from places they feel are safe, which they judge from the delivery experience, the packaging specifics, and the end product. Social media posts about restaurants' hygiene and sanitization procedures can be used strategically to develop transparency from the restaurant to the customer, as they show how the restaurant has adopted safety criteria.

Kitchen workers are performing their jobs in the midst of a pandemic; hence, the emotional stress, the fear of infecting themselves and others, the mourning for relatives and friends, the need to stay economically active and not have the possibility to stay at home, all are factors found in the absorption stage of adverse events of the pandemic. Leaders need to provide emotional support and ensure labor rights for these workers in order to reduce the psychological burden at this stage.

Clear, direct, and science-based communication aimed at all restaurant staff is essential to build active resilience so that in a post-pandemic scenario, restaurants can work more safely than they did pre-pandemic. Leaders who fight the dissemination of fake news in their work environments will be essential to increasing food safety. Leaders will contribute to food safety when they are attentive and able to clarify the veracity of the information that reaches their work team.

### 3. Recovery

The recovery stage is occurring concomitantly with the absorption stage and also will be extended as the next one. The pandemic provokes a shock to 'the commercial restaurant system', thereby triggering a chain reaction of negative events in other systems and subsystems that make up the path from farm to table.

Uncertainty is inherent to this stage of resilience. Economically, the bar and restaurant sector witnessed a 58% drop in revenue from March to May 2020 (Cielo ICVA, 2020). Of the total number of business owners in the industry, 57% reported that they will continue their business after the pandemic, 27.5% will close some locations, and 16.1% will close permanently (ANR, 2020). In order for the economy to rebound, business owners will have to deal with recovering customers and paying new debts.

The recovery of four domains—physical, information, cognitive, and social—at this stage is essential to building resilience (Linkov & Trump, 2019a; Alberts and Hayes, 2003). Applying the work by Linkov and Trump (2019a), (2019b), Alberts and Hayes (2003) to the context of commercial restaurants, the physical domain is concerned with

repairing the infrastructure of the service, and the information domain requires a systematic web of data to assist decision-makers. However complex and severe the situation may be, documents outlining active resilience need to start being written today. Documenting the measures that have been taken, recording the aspects that could be improved, and writing about actions that other locations have taken and that could be implemented in addition to their own measures, generates memory among the restaurant staff. Memory assists in adaptive management, which is enshrined in the next stage of resilience.

According to Alberts and Hayes (2003) and Linkov and Trump (2019a) the cognitive domain includes exploring the perceptions, biases, and beliefs of the individuals involved, thereby enabling the understanding of the established norms and their practical applications. The social domain is based on social support in the face of a pandemic and its repercussions on the health of the individuals. It is believed that the act of restaurants donating meals benefits workers considering this domain, by strengthening pro-social behaviors and willingness to contribute, and promoting feelings of compassion, trust, and cooperation (Piff et al., 2010; Grant & Dutton, 2012).

It is relevant to note that the resilience of "third party" systems and subsystems impacts the resilience of a local (Martin, 2019). The resilience of producers, suppliers, and distributors, among other sectors, tends to impact the recovery of restaurants depending on their own preparation and response speed.

### 4. Adaptation

The adaptations made at all stages need to be perpetuated. Since the hazards relating to FBDs are uncertain, the food safety measures learnt and reviewed, together with social distancing and hygiene measures, should continue in the long term at the same level of practical application as during the pandemic.

Linkov, Trump, and Fox-Lent (2016) state that the objective of adapting is to reduce uncertainties and thus, be better prepared for future disruptive events. The following situations need to be managed in this stage: adapting social spaces to the commensality of the clients, implementing social distance, using separation barriers, and guaranteeing a warm reception of the client in a restaurant.

Learning from past experiences and from memories generated by the pandemic will help construct active resilience in commercial restaurants as they use this adaptive management as a driving force in future decision-making processes, irrespective of whether the situation is an emergency. The resilience of a system is not static (Linkov and Trump, 2019a) and should always be closely monitored by the individuals involved.

### 5. Building the future today

In view of a possible second wave of COVID-19 cases (Ali, 2020), it is urgent that commercial restaurants, as systems, develop active resilience in order to face the pandemic and its repercussions. This construction of resilience is based on applying safe practices in receiving, storing, producing, packing, transporting and delivering meals; welcoming clients in restaurants; as well as ensuring healthy working conditions for all staff, whether they are kitchen workers, managers, cleaners, waiters, or delivery drivers.

It is essential that all staff members are involved in food safety decisions. An integral participation contributes to developing active resilience because if all those involved have the opportunity to share their opinions, then they will build a consensus of values based on their diverse social contexts, for restaurants to follow.

Finally, as stated by Linkov and Trump, 2019a "without clear, transparent, and sensible policy recommendations that acknowledge established beliefs, values and perceptions, even the best-laid plans of resilience will fall to disrepair." Restaurants and workers in this and related sectors need support in the form of measures, programs, and

policies that will help them bear the operational, financial, and emotional burden caused by the pandemic. This will lead them to provide safe food for the population.

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