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Letter to the Editor

Math and aftermath of COVID-19 pandemic and its interrelationship from the resilience perspective


Dear Editor,

The COVID-19 pandemic is an unprecedented disastrous event in human history, shaped to a similar extent by the infective threat and the responses applied.¹ The decision making processes within such a context is embedded in weighting of the potential risks and benefits stemming from these two, sometimes indistinguishable disastrous events.^{1,2}

When considering the infective threat and its immediate and distant consequences, some countries proved to be more resilient than others.^{3,4} Some countries managed to postpone or flatten the devastating peak pandemic effect on their health care system. Other countries were not successful in fulfilling these main aims and were faced with the most tragic pandemic consequences. In all of them, weather on time or not, highly restrictive public health infection-control measures were applied. Despite being deemed necessary, these measures included previously unimaginable restrictions of basic freedoms while causing yet undetermined social, cultural, economic and health side effects.²

Paradoxically, countries that were efficient in managing the immediate effects, and thus more immediately resilient, may be more vulnerable to the emerging consequences of these responses within “new”, post-pandemic realities. So, even though these countries managed to contain infectious threat, the materialization of disastrous consequences of an initially resilient response may emerge. As there is still a great need to uphold social distancing measures and other measures for limiting infection transmission, countries initially more successful, may be more vulnerable to a pandemic “rebound”, as behavioral and lifestyle changes may be perceived as temporary and superfluous. On the other hand, less successful countries may be more resilient afterwards, as materialization of immediate negative consequences may promote the sense of proportionality, necessity and meaningfulness of initial responses (even if they came too late). Highly adaptive and resilient emergent responses (not related to restrictive public health measures) were omnipresent.^{5,6} Although it is currently difficult to argue that those were more prominent in initially more successful or unsuccessful countries, there may be significant differences in how these emergent responses will be evaluated in the future. The unavoidable “shame and blame” responses will have their own specific dynamics, but may be more unconstructive in initially more successful countries, as all the postponed revisions of critical decisions made during the pandemic will be more thoroughly scrutinized. This may fuel the feelings of distrust, as any immediate emergency response is characterized by widening and deepening of preexisting disparities.⁷ On the other hand, materialization of immediate pandemic consequences may uncover all the limitations

of current structures and functions of society, and thus serve as a driving force for implementing necessary changes.

So, success may drive future failure, while failure may drive future success. In that sense, it is useful to evoke early, widely shared comparisons of pandemic containment with a marathon and include possible “pacemaker” or “pacesetter” effects (those runners who lead the initial sections of long-distance races, but are subsequently slowing down, sometimes even not reaching the finish line). So, those that were exposed to tragic difficulties within the initial sections of races, could have a greater capacity to make more constructive adaptations to new, exposing realities.

Resilience could be seen as a process, capacity and outcome of successful adaptation despite, or even exactly because of, threatening circumstances, while allowing future beneficial transformation.^{7,8} As such, it can be attributed to individuals, formal and informal groups, to their interrelationships, and to societies as whole. Despite the fact that the concept of resilience was recently being scrutinized and criticized, it is helpful as it evokes a necessary link between stress and adaptation.⁷ So, ironically, it could be once again emphasized that certain level of threat is a necessary precondition for provoking resilience and thriving. This corresponds elegantly with the Arndt-Schultz law, especially when translated into Selye’s Syndrome - an expression of Claude Bernard’s milieu intérieur.^{9,10} The Arndt-Schultz law states that for every substance, small doses stimulate, moderate doses inhibit, large doses kill. Hans Selye formulated his general adaptation syndrome as a three-stage process that describes the physiological changes under stress and identified these stages as alarm, resistance, and exhaustion. We witnessed all of these stages in various systems, with both favorable and unfavorable outcomes in dealing with COVID-19 explained by the exhortative effects of optimal stress and the detrimental effects of maximum exposure on the adaptive mechanisms of modern society.

There are many pitfalls when trying to define and operationalize any overarching concept such as resilience, even if it corresponds well to fundamental human characteristics and is easily accessible to unrefined empirical evidence.⁸ This pandemic however, whether by the collective nature of infectious threat or needed responses, singles out the importance one particular precondition necessary for resilience in contemporary highly interconnected societies - development of a sense and knowledge of shared threats.⁷ This drives abilities and willingness of every individual within a society to act towards shared goals and toward collective minimization of shared threats. The necessity of threat in order to provoke resilience is here more evident than at individual level of inquiry, as collective threat has more profound cohesive and galvanizing effects than individual one. However, the determination of optimal stress level, especially between the one with exhortative and detrimental effects, turns out to be a quite difficult, especially when multiple stressors are inextricably intertwined. In post-acute pan-

demographic realities, determination of optimal stress level will be more critically shaped by the intended and voluntary (re)actions by the state and its constituents than it was the case in the immediate pandemic setting. However, any intervention aimed at fostering resilience may turn out to undermine it.⁸ It is easier to justify something that is perceived as a necessary reaction, but the COVID-19 pandemic setting made it clearer than ever that human agency is involved in all types of disasters, whether natural or not. In that sense, as humans are agents who do indeed shape their realities and their context, and as threat is obviously necessary for thriving, it may be just a matter of perspective or even level of inquiry what we, at current point, single out as threat and what as desired outcome.

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