

EDITORIAL

COVID-19, AN INFODEMIC ASSOCIATED WITH PANDEMIC: THE SOCIOECONOMIC IMPLICATIONS AND PRESSURE ON HEALTHCARE

1. Ever since the human dawn leading to habitation on planet earth we have been haunted by various biological and non-biological threats. Though man-owned disasters and nature's calamities all human have threatening the human existence on this planet with several examples of untold stories depicted by the ruminants of various structures. Diseases have always been one of the nature's test for mankind since the known history of today's civilization. The search of ancient literature is replete with examples of diseases like leprosy with outbreaks and epidemics ravaging the mammalian species from the prehistoric era to Roman, Greek Middle Eastern empires¹. We also experienced the "Black Death" stigma linked with plague which undoubtedly emerged as one of the most gruesome and ghastly truth of the European Middle ages². Not far from now the memories of "Spanish Flu" (H1N1 Influenza A) still terrify mankind, which almost affected one third of World's population and caused more deaths than the First World War itself³. These historical examples, emerging scientific data on infectious diseases and fictional movies on such themes create a level of awareness among masses, albeit correct in many ways still provide either an incomplete truth or a reaction beyond need.

2. The response to any undesirable eventuality remains to be optimal and focused without compromising the evidence based needful health care requirements. The above statement though desirable has a utopian touch tailed to it in terms of use of evidence which is usually variable and is bound to have country wise limitations in terms of resource availability. The matter becomes more biased once the resource allocation in respect of public pressure, politics and possibly other objectives results in a deviation towards a well-publicized ailment with little vulnerability to emergent ones which are labeled "lethal" in every book of medicine⁴. This approach undeniably compromises health economy for resource-

scare nations ending up further away from achieving "Sustainable Development Goal" (SDGs)⁵. These side effects to management of medical information spillage to non-medics and medical personnel pave way to an "Infodemic", a term recently coined for excessive information related to an issue leading to plethora of solutions ultimately causing situation handling more difficult⁶.

3. The recent occurrence of "COVID-19", now been termed a "controllable pandemic" by WHO is one the example of such diseases where the exuberance of varying information has resulted in world wide "Corono Phobia" which by some experts is exaggerated. Ren *et al* in their review have considered misinformation, discrimination and prejudices against patients were termed as factors superseding the efforts for screening, quarantine stay and most importantly medical management⁷. Pertinent here is to mention that most personnel including non-medics do understand that Corona is not a new entity, also recognize the minimal mortality rate associated with COVID-19, requirements of quarantine and necessary precautions to avoid the disease. Xu *et al* in sharing their "The Zhejiang Experience" also mentioned the element of fear and anxiety associated with the virus infection necessitating them to suggest psychological assessment of the patients in care⁸. Such psychological behaviors are not out of proportion for COVID-19 and have been associated with certain other diseases specifically once tagged with infectiousness, unemployment and ethnicity⁹. Similarly, such stigmatizing behavior is both prevalent in developing and developed countries¹⁰.

4. The most ignored aspect of any healthcare policy implementation is the economy at which care is provided. A normal healthcare budget usually cater for a limited amount of such unforeseen situations. Healthcare policy makers remain at odds in how, where and when to address a possible disaster which may be an earthquake, some infectious disease or some man made

tragedy requiring resource diversion of both material and medical personnel¹¹. An appearance of a false alarm in countries with limited reserves can suck in huge chunk from health care allocated budgets and thus other critical aspects of care provision can be compromised¹². The psychological and social effects associated with an outbreak, pandemic or epidemic are also to be taken into account which results in further cuts on nation's economy^{7,8}. Stellmach *et al* have highlighted the need of multi-disciplinary approach in the wake of any outbreak with subject specialist and emergency medical teams working hand in hand with experts from social service, finance and psychology to bring in a combinatorial approach towards disease management¹³.

5. In summary the way forward to avoid an infodemic and to ensure provision of an evidence driven care to any biological or non-biological threats can be formulated as:

- a. **Disaster Management Team:** Team leader, along with co-driver and experts needed to address the specifics of a biological threats must be decided as early as possible for the disaster who may define the support of other experts to address the disaster¹⁴. Usually the team leader may be an expert from the domain and have experience in managing such threats.
- b. **Information Management:** The information from all sources should flow to one dedicated center of excellence for them to decipher, diagnose, treat and most importantly inform the policy makers, financiers, resource providers, affected individuals and most importantly media. Duplication and multiplication of information must be avoided¹⁵. Regular updates may be provided. In all case scenario technical information may be tailor made to the level of understanding of the community.
- c. **Medical Management:** This may be outlined and improved overtime by the guidance from designated experts who should collect information from all sources. Requisite diagnostics and therapeutics must be shortlisted as per available resource. A mechanism for central procurement and distribution based upon perceived threat must be planned in liaison with financial experts¹⁶. A policy for one country may not be applicable in other due to resource constraints.
- d. **Non-Medical Requirements:** While a biological or other disaster may differ in every possible way, but in case of the former a technical person may be better suited to frame the non-medical associated need and can advise upon their optimal usage. The medical team leader may be placed on the advisory role while the non-technical disaster management expert may work as per the raised requirements. A detailed first line to last line plan may be formulated addressing all worst case scenarios with consensus.
- e. **Socioeconomic Effects and Human Psychology:** While medicinal and hospital needs may be directly calculated and delivered, the related social and psychological aspects of disease may also need professionals in the team so social welfare experts and psychologists must be included in the team. Their efforts can bring down the level of anxiety and related social concerns arising from employment, family and specific individual needs.
- f. **Training & Virtual Mock Exercises:** The best measures to adopt the perfected policy against a biological threat like COVID-19 remains in ongoing preparedness by specific education and addressing non-conformances during conduct of a mock exercise and virtual development of disease spread scenario¹⁷. It remains pertinent to frequently adopt to such practices to see disease pattern of spread and spillage related needs.
- g. **Research and Development:** While aforementioned aspects stand pivotal, timely addressing the need for medicines, vaccines and other treatment approaches must be started immediately. Scientists specializing in the field must be included in the team for

opinion and onward preparedness to develop the much needed counter weapons to safeguard non-cases and manage patients.

Note: This write up is not-intended to undermine efforts of teams working on medical disasters but to support target specific approach towards the biological threat including information management.

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Surg Cdr Sikandar Hayat Khan
 Consultant Chemical Pathologist
 PNS Hafeez, Sector E-8
 Islamabad Pakistan
 +923335267328
 Email: sik_cpssp@yahoo.com