

Benefit, Harm and the COVID-19 Pandemic: A Medical Student's Perspective

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Introduction

'Benefit and Harm' is Article 4 of the UNESCO Universal Declaration on Bioethics and Human Rights. The basis of this principle is *Primum non nocere*, which means that, above all, do no harm. The bioethical principle of "Benefit and harm" explores all the scientific and medical knowledge to benefit the patients and avoid any damage. COVID-19 pandemic has been arduous for the patients. Lockdown in the initial phase of the COVID-19 pandemic led to the closure of OPDs. Health care facilities were mainly reserved for people suffering from COVID-19, which led to much harm to other patient groups. Now lockdown has been relaxed to some extent, and the governments across the globe are trying to revive the economy. As future healthcare professionals, we need to learn from mistakes and avoid repeating them in the future. Benefit and harm in the context of the COVID-19 pandemic have a vast spectrum of issues. Almost all the bioethical principles are involved in one way or another.

COVAX- A Global Initiative (Sharing of Benefits)

Across the world, people are responding to the global health crisis caused by the COVID-19 pandemic. Governments, researchers, and scientists are working in unison for the common good. One such global initiative is COVAX. It is co-led by the Coalition for Disease Preparedness Innovations (CEPI), Gavi, the Vaccine Alliance, and the World Health Organization (WHO), working in cooperation with developed and developing country vaccine manufacturers. By the end of 2021, the aim is to provide two billion doses of safe, effective vaccines that have received regulatory approval and prequalification from the WHO [1]. These vaccinations will be internationally available to both high-income and low-income countries in an equitable way. Priority to health care staff and then extending to include disadvantaged groups, such as the elderly and those with pre-existing conditions. Further doses will then be made available based on country needs and vulnerability. The COVAX facility will also maintain a buffer of doses for emergency and humanitarian use, including the treatment of severe outbreaks until they escalate out of control.

Convalescent Plasma Therapy

SARS-CoV-2 has led to the death of millions across the globe. Researchers are incessantly trying to develop methods to combat the deleterious effects of COVID-19 disease on the people. One of the latest developments in treating severe or life-threatening COVID-19 disease is convalescent plasma therapy. The majority of Convalescent donor plasma contains SARS-CoV-2 specific antibodies identified by lateral flow assay tests [2]. The passive antibody administration directly neutralizes the pathogen or through other antibody-mediated pathways and provides short-lived immediate immunization imperative in severe or life-threatening conditions [3]. Initial observational studies advocated for the use of convalescent plasma therapy. Recent studies reveal

that convalescent plasma is not effective in improving mortality or clinical improvement is uncertain in patients with COVID-19 disease [4-6].

Masks, Sanitizers and PPEs- For the Common Benefit

With the onset of the COVID-19 pandemic, governments' focal point across the globe is to break the transmission chain. The old-age saying of prevention is better than cure holds in this case also. Because of scarce resources and the influx of far too many patients into hospitals, providing healthcare to everyone is difficult. Governments are taking steps to minimize transmission within the community. Taking bold measures will ensure that even if cases increase, the growth rate is slow and prevents sudden spiking in the growth curve. Also, it will help the service providers give quality health care and decrease mortality and morbidity. Studies conducted worldwide reveal that wearing a mask in community settings significantly reduces infection transmission risk and can prevent the COVID-19 outbreak [7-10]. Also, wearing masks is of paramount importance to health care workers. Though the type of masks varies upon the degree of exposure to COVID-19 patients, and there are guidelines issued by CDC and WHO, most evidence supports the use of masks in exposed healthcare workers [11-13]. Nowadays, the limitation concomitant with using the mask is an improper technique, leading to a compromised efficaciousness. We need to provide adequate training and education to individuals and health care workers to overcome the constraints.

All around the world, people are using alcohol-based sanitizers to reduce transmission and protect themselves from acquiring the infection. International organizations such as WHO and CDC are advocating the use of alcohol-based hand sanitizers. There are pieces of evidence that buttress the use of alcohol-based hand sanitizers. Gel and foam alcohol-based hand sanitizers available in the market are effective against SARS-CoV-2 when the correct hand hygiene technique is accompanied by other precautionary measures [14-15]. Hand sanitizers can also be harmful as they may cause skin cancer, though it is still not established due to the research gap [16]. If ingested accidentally, alcohol-based sanitizers can lead to acute or chronic toxicity [16-19]. So, we need to be vigilant, especially in the case of the pediatric age group. Healthcare workers are using PPEs to shield themselves and their patients from any further exposure. PPEs are in short supply these days, and everyone is trying to utilize them in the best way possible. PPEs help protect and limit infection spread in hospitals, so professionals use them, especially in the current pandemic scenario [20-23]. The judicious use of PPEs safeguards both healthcare workers and patients.

Use of Telemedicine in Pandemic- Is it beneficial and accessible to all?

Telemedicine uses technology as a communication channel between doctors and patients to dispense healthcare at a distance. Various facilities are suspended during the pandemic, and emergency services are reserved only for the people with COVID-19 disease leading to a gap between the treatment providers and the patients. For bridging the gap, the alternative of telemedicine was sought. Many studies conducted across the globe suggest telemedicine can help reduce the gap and provide healthcare to patients who need it the most [24-27]. However, telemedicine has its limitations as it is not of much use to people who are inexperienced with technology or have visual and hearing problems [28-29]. Still, telemedicine has a positive impact on many patients who cannot visit clinics or hospitals due to pandemic. Telemedicine minimizes the risk of exposure in patient groups such as diabetics, hypertensive, critically ill, end-stage disease, elderly, and children at higher risk of mortality.

Drugs and associated harms and benefits

During the pandemic's initial phase, various drugs were used for prophylaxis and management of patients with COVID-19. In desideratum, everyone rushed to use these without seeking evidence of safety and efficacy. One such category is of anti-malarial drugs, chloroquine, and hydroxychloroquine. These were recommended based on promising preclinical data. Though these drugs have a narrow safety margin and there is limited corroboration from clinical trials to prove their safety and efficacy for prophylaxis and treatment, and usance of these drugs may also create a false sense of security [30-32]. Another category of highly talked about drugs are glucocorticoids. Certain studies support reducing mortality and mechanical ventilation in severe

COVID-19 disease, but there is little evidence from clinical trials to support it [32-33]. Antiretroviral drugs are also being used to treat patients. Again, there is little clinical trial-based evidence to support their use [34-35]. So, before prescribing, associated harms and benefits need to be appraised based on clinical trial evidence.

Clickbait News and associated harms in pandemic

During the COVID-19 Pandemic, catchy headlines to get clicks and page views are rising. Health professionals or students undergo training regarding cause, transmission, prevention, and treatment of COVID-19. So, they have in-depth knowledge regarding COVID-19 and its recent developments. However, the General Public does not have sound knowledge about the disease process and is vulnerable. This news can be fake and may affect the perception of people towards the disease. False or misleading clickbait information provided through various online platforms can negatively impact public health in general. So, there is a need to address this issue and create awareness among the public to counter it. If we successfully educate the masses regarding ways these clickbait platforms use to get page views, we can curb its negative impact on the people. Clickbait news aims at exploiting the curiosity gap. It forces the person to pursue the information. Abuse of the curiosity gap and treating a person only to gain page views and fulfill personal interests reflects a compromise in human dignity. The definition of health by WHO takes the psychological and social dimensions of people's condition seriously. By exploiting the curiosity gap, clickbait news also causes moral harm. People may realize later that they were tricked, which may lead to psychological harm. We have seen the promotion of various traditional herbs without scientific-based evidence of their actual benefit. Misleading information may lead to harm to the overall health of people. Clickbait news promises to give something that the users desire. People may lose self-control and click these links to pursue their desires, which is an indirect violation of autonomy. Publishers promoting misleading news just for personal gains are not aware of their responsibility to the general public. They are not taking into account the best interests of the general public. Autonomy without responsibility is no autonomy. We often see publishers using the term Chinese virus. Careless use of this term may stigmatize the people of China at the international level. Clickbait news also exploits people's cultural diversity and beliefs for their gains, violating the bioethical principle of Respect for cultural diversity.

Conclusion

COVID-19 pandemic has presented humans with challenges as never before. With limited resources and knowledge to combat the fewer known variables, we are struggling. The only way to ensure the best outcome is to work together and share scientific and medical knowledge from various research projects conducted across the globe. Sharing of benefits will ensure that all have the best available experience to combat the disease. However, this must not come at the expense of unethical research practices. Any research should involve following standard international protocols and the principle of *Primum non nocere*. Throughout the world, the central area of focus is to break the community transmission chain. We should advocate the use of masks and sanitizers in both community and healthcare settings. The judicious use of PPEs is recommended in healthcare settings. Recent developments in COVID-19 disease treatment include hydroxychloroquine, chloroquine, glucocorticoids, and antiretroviral drugs, but this is without proper evidence from clinical trials. Evidence-based practices should be encouraged; otherwise, there will be adverse and unpredictable outcomes. Respect for cultural diversity, human vulnerability, personal integrity, and bioethical principles of autonomy, equality, equity, and justice is crucial in solving the hurdles we face. This is the time to unite and stand together above all our differences.

Abbreviations-

COVID-19: Corona Virus disease 2019; WHO: World Health Organization;

CDC: Centre for Disease Control and Prevention; SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2; PPEs: Personal Protective Equipment; OPDs: Outpatient Departments.

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