**Title: Ethical issues in COVID-19: Implications for the Disease Control**

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**Abstract:**

**Background**: The global level appearance, spread, and disease control of novel coronavirus disease-2019 (COVID-19) have raised vital ethical issues. National and international responses to SARS have already had profound implications for 3 important ethical values: privacy, liberty, and the duty to protect the public health. To some extent, these had to be sacrificed as it is mandatory to control the pandemic. Thus the sacrifice has to be under ethical consideration and should not trigger human rights. The authors aim to consider the ethical issues in the eyes of the public and professionals to the adopted method to control the COVID-19 at the primary and secondary level with a desire to succeed in bringing the outbreak to an end. **Methodology**: Active verbal survey of the patients, attenders, and the professionals of the workforce to COVID-19 at designated hospital in Mysore. **Results**: The ethics of public health were highlighted in terms like; the duty to protect the public and the individual rights of privacy and liberty. **Conclusion**: Development of a set of the ethical precautionary principle, justice to health concepts like primary and secondary prevention, and transparency becomes essential when, as true with COVID-19 and will undoubtedly be the case with future epidemics, scientific uncertainty is pervasive and urgent public health action.

**Keywords**

COVID-19, Coronavirus, Ethical issues, Isolation, Quarantine

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**Introduction:**

Centers for Disease Control and Prevention1, Bradsher K2 and Gostin LO3 have put forth in 2003 itself regarding the Severe Acute Respiratory Syndrome (SARS) and the Chinese attitude as follows; “The first reports of SARS from China, coming after months of delay, provided the occasion for an extraordinary international mobilization of public health resources. At the WHO there was consternation that if preventive measures were not put in place rapidly a worldwide pandemic might emerge. It was necessary to take action despite the Centers for Disease Control’s acknowledgment in April 2003 that the scientific community had an incomplete understanding of SARS and its mode of transmission”. Despite this 17-year-old thoughtfulness, none of the nations were ready to combat COVID-19.

It was a stale that has made global health status miserable. When, in late 2019, it became obvious that the novel coronavirus disease 2019 (COVID-19) was a virus generated from Wuhan, China capable of pandemic harm, health fraternity wondered whether they were looking into the deep hole. The morbidity and mortality of the corona, involved in COVID-19 are due to the changes in viral morphology and interactions with the human immune system and human-human transmission. In a developing country, like India, Medical and Dental practitioners deal with uncertainty: limited stock in trade and constantly swinging between actions of legislation, executive and public body. Always health practitioners think common things are common unless otherwise specified as a rare thing or a new thing emerged like COVID-19. The surprise and shock due to COVID-19 are to such an extent that, COVID-19 is leading the news and social media. This agitates, and apprehends the different strata of the society resulting in physical and mental illness, affecting social, economic and political status.

Anxiety and fear in all aspects of life being the important public response to the pandemic and post-pandemic state is a normal thing. This leads to prejudices against people and communities which may culminate into increased hostility, and unnecessary social disruption. The society turns to criticize the legislation about the poor preparation, unclear message to the public, inadequate personal protective equipment (PPE) and lack of testing for COVID-19, putting medical, nursing, social care, and support staff at risk as it is still an age of incompetent politics.4 All these lead to the epidemic threat, economic risk, and xenophobia with precipitous losses in global stock exchanges and risk of recession. There have been xenophobic, verbal and physical attacks on people of Asian descent and descriptions of the disease as “the Chinese virus” are all connected in this long legacy of associating epidemic disease threat and trade with the movement of Asian people.5

History reveals that the quarantine, cordon sanitaire, and social distancing practices dates back to the 14th century and the spread of epidemic diseases emerged as a problem requires an international coordinated response. From the time of discovery of America, colonial expansion brought smallpox which created wreckage to the natives, and at the same time Europeans encountered new epidemics like cholera, typhoid, plague, etc. and imprinted to India also, claiming lives in thousands. White AIR5 mentions that the “quarantines were costly, and were also an effective tactic for imposing trade tariffs and enacting trade wars under the guise of public health. A new system was needed to better manage the spread of infectious disease”.

When there was global opposition to the emergence and spread of the new disease like the human immunodeficiency virus/AIDS pandemic in the mid-1980s6, multi-drug resistant tuberculosis in the early 1990s7 and the severe acute respiratory syndrome (SARS) in February 20038, 9, it became clear that a host of ethical and legal issues had begun to surface rather than merely establishing a doctor-patient relationship. Indeed, not since the initial periods did it seem that ethical questions posed by public health had to be addressed simultaneously. In several respects, COVID-19 took society back to a pre-therapeutic era with no definitive diagnostic test, a nonspecific case definition, and no effective treatment or vaccine. The first International Sanitary Conventions held in 1892, penned down the measures for prevention of the international spread of infectious diseases. To maintain the health and economy of the state the measures taken should have minimum effects on trade and travel as these create international concern due to economic threats and global trade. Similarly, the threat of COVID-19 could disturb systems of progressive living, demands aggressive disease control and scrutiny of those people deemed to be responsible for spread.

Ethical thinking about framing of disease, COVID-19, a serious and dangerous pandemic threat, finding solutions for threat and to protect all members of the population is the need of the hour. To achieve this it is essential to establish primary and secondary health care systems in the community so that the need for tertiary health care (disability limitation and rehabilitation) will be reduced. The COVID-19 global burden at this juncture, on May 19th, 2020 is 48,94,222 cases, 19,08,065 recovered and 3,20,181 deaths.10 It is important to evaluate the global public health response and guidelines with a special interest in ethical surveillance, isolation and quarantine, contact tracing, travel restrictions, and disease control, which was similarly evaluated during the SARS outbreak with some pitfalls.3 Now it is the time in India for such analysis and to implement the ethical principles that should guide the medical and dental fraternity if and when cases surface again now and in future.

**Materials and Method:**

A prospective verbal public survey among the patients, attenders, workforce professionals and the common public was conducted and the response was noted and analysed during March and April 2020, in the red alert area, Mysore, Karnataka, India at different places like COVID-19 Hospital, KRS Road, Mysore; Krishnaraja Hospital, Mysore Medical College and Research Institute, Mysore.

The points of focus were on

1. Control measures of COVID-19

2. Day to day life during COVID-19

3. Managing anxiety, stress among the workforce and common public

**Results:**

The results were summarised and noted as, the ethics of public health were highlighted in terms like;

-The duty to protect the public

-The individual rights of privacy and liberty

These led to the emergence of a set of individual queries in regards to the tolerability of risk and the role of the precautionary principle in public health, personal stigma, group prejudice, and the economic viability of businesses, required socio-political judgments, focusing on creating awareness, health education and caring for mental health.

**Discussion**

The virus was named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)11 causing COVID-19 is zoonotic in origin, Chinese horseshoe bat (Rhinolophus sinicus) being the host 12, 13, 14 and pangolins are the likely intermediate host.15 The transmission started with the animal-human transmission, followed by the human-human spread. The spread is through the respiratory droplets, aerosols, and contact16, 17 which requires quarantine, social distancing, and restriction in traveling for the early control. Thus post COVID-19 endorses the decisions on values of liberal democracy and individual rights which may have more universal applicability under human rights and also block disease transmission without unduly restricting the rights of individuals.

**Social distancing, Isolation, and Quarantine**

India has adopted public health tools like social distancing, isolation, and quarantine against COVID-19. Social distancing or physical distancing is keeping 6 feet (2 meters) space between individuals in indoor and outdoor spaces, not gathering in groups, stay out of crowded places and avoid mass gatherings.18 In routine day-to-day life maintaining space is one of the best tools to avoid being exposed to corona. Since asymptomatic carriers can spread the virus, it is important to stay away from when possible because COVID-19 spreads in close contact for a prolonged period, cough, sneeze, or talks, and droplets from mouth or nose. Social distancing plays a vital role in slowing the spread and protecting themselves, imperious to protect the public’s health should not become a hurdle in the name of ill practices in the society. Isolation is used to separate sick people from healthy people for the period of communicability. People who are in isolation should stay home. In the home, anyone sick should separate themselves from others by staying in a specific “sick” bedroom or space and using a different bathroom (if possible). In contrast, quarantine is the restriction of the activities of healthy persons who have been exposed to a communicable disease, when traveling or out in the community to prevent disease transmission during the incubation period.19, 20

Quarantine helps limit the further spread of COVID-19. Quarantines can operate at the individual or population level, perimeter, or geographic which involves restrictions on travel to and from designated geographic areas or places. The legislation decides to confine patients in their homes or general hospitals or the construction of special infectious disease hospitals. The authorities order mass quarantines like closures for schools, hospitals, factories, hotels, restaurants, places of entertainment, or residential buildings, incoming or outgoing travels. The voluntary separation of exposed patients will also be sought. The enforced quarantine can be tracked by an electronic tracking system as done earlier by Hongkong police department21 which should not be considered as an unethical and undue mark on privacy. In India, any violation can be booked under Indian Penal Code 269 and 270.

**Limits of Freedom in Isolation and Quarantine**

Even though isolation and quarantine raise questions about the limits of liberty certainly, such separation is acceptable ethically to prevent the significant risks of transmission of COVID-19. In diversified culture and awareness questions can be raised in regards to the loss of liberty, the social and economic harms, and the potential for using public health as a maneuver for discrimination. A court in the United States, invalidated an early 20th-century quarantine in San Francisco, Calif, that operated exclusively against the Chinese community, concluding that public health officials had operated with an “evil eye and an unequal hand.” 3, 22

*Issues to be considered during quarantine are as follows.*

a) To assess the ethical and legal justification for isolation and quarantine.

b) Scientific assessment of risk, targeting restrictive measures, a safe and humane environment, fair treatment and social justice, procedural due process, and the least restrictive alternative.

c) Isolation and quarantine are designed to promote well-being and not to punish.

d) Quarters for isolation and quarantine are decent and not degrading with adequate health care, protection from further exposure, food and clothing, and means of communication with family, friends, and attorneys. Jails and prisons are unacceptable settings for confinement.

e) Places should offer skilled medical and nursing care, infection control, isolation negative pressure rooms, and isolation facilities.

f) The poor may need consideration for compensation as social justice during isolation and quarantine who lose vital income. Such measures were taken during the SARS outbreak in Taiwan where “Persons who completed quarantine received the equivalent of US $147.23

If the criteria are followed all legal systems and human rights, permit to encroach on personal liberty to prevent a significant risk to the public.

**Shadowing and Contact Tracing**

Shadowing or surveillance is an essential public health strategy. It is the core responsibility of all nations to identify and report the cases and contacts by name and address to the public health authorities during an outbreak. This essential public health strategy should not claim privacy to some extent.24, 25 But in the COVID-19 outbreak due to uncertainty in defining the disease and the diagnostic assay, the function of surveillance may be complicated. This can also lead to difficulty in identifying the disease clusters, map the spread, understand the patterns of contagion, and detect lapses in hospital infection control practices. But, as the WHO explained, the SARS outbreak also represented “a test case” of whether name reporting, “rigorous contact tracing and other stringent public health measures can contain further spread even when very large numbers of persons may have been exposed”.26 Therefore it is mandatory to be very specific with allowed variations in defining and using a highly sensitive case definition which can undertake aggressive contact tracing, tracking social, hospital, occupational, travel, personal contacts during the specific period of the outbreak. During the SARS outbreak in Singapore, the contact tracing was assigned to the military and in Hong Kong to the police.2, 27, 28, 29 However, in Toronto, hospitals sometimes failed to meet stringent reporting obligations, without which contact tracing cannot be conducted.3 In the present COVID-19 situation also it will be difficult in maintaining quality management and treatment if the health staff is put behind the shadowing. The more extensive form of surveillance is the need rather than mere reporting by body temperatures. During SARS (2003) outbreak in Toronto and Singapore hospital workers, government workers, food servers, bank tellers, reporters, beauty parlor patrons, taxi drivers, and hotel staff determined their body temperature once a day and wore “fever-free” stickers: the goal was that the entire population monitor their temperatures daily.30 In the United States, surveillance and contact tracing efforts were less aggressive,31 reflecting social and cultural norms and the limited nature of the SARS outbreak. But in COVID-19, Italy, Spain, and the United States repeated the same but the details of China are not known. SARS surveillance data also carried financial and social consequences for geographic and ethnic communities. The publication of surveillance data unwittingly called unwelcome and even injurious attention to people of particular racial or national backgrounds.32 The origins of the disease in China fuelled negative Chinese stereotypes. There was also evidence of overt discrimination and racism in North America.33, 34 A similar thing has been repeated in COVID-19 also which is not acceptable.

**Privacy Limitation in Surveillance and Contact Tracing**

Surveillance is an epidemiological measure that raises issues regarding the limits of privacy and a challenge to policymakers as it breaches the confidentiality of the doctor-patient relationship. Although physicians have historically resisted public health intrusions, the absence of legal and ethical challenges to the practice in recent decades the debates over-reporting the names of patients with human immune deficiency virus were a striking exception suggests that name-based surveillance has been recognized as an acceptable limit on privacy.3 The state has designed standards to intervene, make decisions openly, consult with the relevant communities, and use data only for legitimate public health purposes or in the interests of the common good. In COVID-19 it is essential to evaluate and trace the infected and contacts by name and address otherwise it will be ineffective in controlling the outbreak. As a matter of law of the land, it becomes mandatory to the treating physician to report and COVID-19 a notifiable disease. The United States Supreme Court has held that mandatory name reporting constitutes “a reasonable exercise of the state’s broad police powers” when people’s names are stored securely.35 It is imperative not only to determine how privacy will be protected but also to account for the practical limits of privacy, particularly as contact tracing is undertaken. It will be also the moral commitment of the public to appreciate in giving the names that are at risk of COVID-19 or having contact with COVID-19 or have a travel history. However, the willingness to cooperate in contact surveys may rest on the understanding of the public health needs and the practical limits of privacy which was very much lagging in the present place of study undertaken and to some extent in India also. Shadowing minimizes the stigma of COVID-19 among the community at risk which usually imposes the additional burden of social condemnation. Unintentional magnifying the data by the public health staff is another drawback that may limit the aims of surveillance. Lawfulness is achieved by using the data obtained by mandatory notification by using solely for valid public health purposes which seems to be lacking in every step in China.

Surveillance is warranted if it is directed, for example, to reducing morbidity and mortality or directing resources to those who require treatment but not to achieve punitive ends. Although it may prove appropriate for the health system to call on law enforcement to fulfill public health mandates (eg, enforcing quarantines), health professionals should have exclusive responsibility for eliciting the names of contacts and instructing individuals about precautionary measures.3 During the SARS outbreak in 2003, it was the months-long failure of China to report its outbreak that delayed an effective international public health response3 which China repeated in the same manner in COVID-19 also which amounts to breach in treaty obligations. The WHO’s International Health Regulations, originally adopted in 1951 mandates the members to notify the cases of cholera, plague, or yellow fever and revised the IHRs to include all public health emergencies including SARS of international concern through reliance on “global information networks.” In May 2003, the 56th World Health Assembly adopted a resolution that called SARS an international public health emergency and urged member states to report cases to the WHO “promptly and transparently”3, 36 which has been breached by China in COVID-19.

**Ethical Recommendations to Encounter Covid-19 Threat**

During SARS epidemics, WHO said, early identification, prompt reporting, and isolation of symptomatic cases, along with contact tracing and confinement had effectively restricted the outbreak.37 This ethical recommendation has been diluted in the present COVID-19 flu situation which witnessed a worst global health scenario. But as on date in India, the fact that a rapidly spreading COVID-19 with high case fatality rate has brought under control by some combination is beyond question. The uniqueness of the precautionary principle taken in India for the ethics of public health instructs an obligation to protect the population against reasonably foreseeable threats, even under conditions of uncertainty in defining and diagnosing the COVID-19. The precautionary principles have covertly guided public health interventions designed to limit or forestall epidemic outbreaks. For nations that share the central values of liberal democracy, safeguards of individual rights must bound the precautionary principle. The public should understand the facts and reasons justifying public health interventions, the goals of intervention, and the steps taken to safeguard individual rights. Creating awareness and public education to identify, trace, and prevent COVID-19 are the essential features of public health.

**Encountering the Mental Illness**

The human being is a social animal. It has become mandatory to keep social distancing, isolation, and quarantine for the prevention of the spread of COVID-19. It has already established in the past during the SARS outbreak the importance of mental health. The pandemic is having a major social and psychological impact on society and the stigma of the disease. The government has issued an advisory on patients with coronavirus and those kept in quarantine. An advisory has asked not to disclose the names and addresses of Kovid-19 patients and the people kept in the quarantine on social media.38 In general COVID-19 outbreak and measures to control itself a major psychological risk factor for anxiety, depression, and self-harm. These features can lead to prejudices against people and communities which may culminate in increased hostility, and unnecessary social disruption. In normal situations itself, mental health has become a significant problem with the rising numbers in cases of anxiety, stress, depression, suicide, and violence. A survey from the Behavioral Risk Factor Surveillance System39 found that 46% met criteria established by the American Psychiatric Association (APA) for having had at least one mental illness in their lives. They were anxiety disorders, mood disorders (including major depression and bipolar disorders, impulse-control disorders, and substance use disorders (including alcohol and drug abuse). Mental illness has been and remains a major cause of disability, dysfunction, and even violence and crime. It is ethically very vital to provide mental health and encountering mental illness during an epidemic outbreak. The psychological conditions ranging from post-traumatic stress symptoms to confusion, anger, depression, stress, insomnia, and emotional exhaustion. In the majority of cases mere activating the social network will be helpful. However, in a situation like isolation, quarantine, lockdown and seal down it is not possible to explain which factor triggers the illness further.

**Stress during an infectious disease outbreak**

* Fear and worry about own health and the health of loved ones
* Changes in sleep pattern
* Change in eating patterns
* Difficulty in concentrating
* Worsening of chronic health problems including mental health conditions
* Increased use of alcohol, tobacco, or other drugs

Elderly people, people with chronic diseases, children, teenagers, doctors, health care providers, people with mental illness and substance abusers respond more strongly to the stress of a crisis.

**Behavioral changes in children**

* Excessive crying or irritation in younger children
* Returning to behaviors they have outgrown (for example, toileting accidents or bedwetting)
* Excessive worry or sadness
* Unhealthy eating or sleeping habits
* Irritability and “acting out” behaviors in teens
* Poor school performance or avoiding school
* Difficulty with attention and concentration
* Avoidance of activities enjoyed in the past
* Unexplained headaches or body pain
* Use of alcohol, tobacco, or other drugs

#### Ways to support children

* Talkabout the COVID-19 outbreak and r**eassure**
* **Limit exposure to news coverage** of the event
* **Keep up with regular routines.** (schedule for learning activities and relaxing or fun activities), Take breaks, get plenty of sleep, exercise, and eat well. Connect with your friends and family members.
* **Take care of your body.** Take deep breaths, stretch, eat healthy, well-balanced meals, exercise regularly, get plenty of sleep, avoid alcohol and drugs
* **Connect with others.**

**Geriatric special considerations**

* Older adults and disabled people are at increased risk of depression. Depression should not be mistaken for a normal part of aging. They can present with physical complaints (such as headaches or stomach aches) or cognitive problems (such as having trouble concentrating).
* **Concern about protecting oneself** from the COVID-19 virus because they are at higher risk of serious illness.
* **Concern that regular medical care or community services may be disrupted** due to facility closures or reductions in services and public transport closure.
* **Feeling socially isolated**
* **Guilt**and **increased levels of distress** if loved ones help them with activities of daily living. Experience stigma because of age, race or ethnicity, disability, or perceived likelihood of spreading COVID-19.

**Keep loved ones safe**

* **Know what medications one is taking and keep a stock of medicines, food, eatables, and things require for normal routine life. Never allow them to feel about the lack of the necessary things.**
* **Monitor other medical supplies** (oxygen, incontinence, dialysis, wound care) needed and create a back-up plan.

**Conclusion**

It is the same old stale from a place, created COVID-19 havoc which became pandemic and forced the public health authorities to act on worst-case scenarios based on assumptions of how an airborne disease might spread, to combat the spread by isolation and quarantine in an acceptable, transparent manner without causing any mark on social justice with the cooperation of the legislation and executive body in a biggest democratic country like India at the cost of normal life and civil liberties. The ethical and scientific move has drastically reduced the catastrophe in India so that the national and international public health agencies must be willing to take preventive measures and openly acknowledge when new evidence which permits reconsideration of policies. The adoption of ethical recommendations will be a necessary concomitant of pandemic control in democratic societies.

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