Emergency preparedness in a pandemic: Cultural considerations and ethical decision making

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Abstract:

After COVID-19, it is evident that although pandemics have a negative influence on all types of populations overall, the most vulnerable people suffer the most. Even though the COVID-19 pandemic has proven to be one of the worst to date, it has left us perplexed and worried that it may not be the last one we encounter. Even if the government has put forth numerous efforts and resources, some social customs and ethical standards have made it difficult to contain the spread at an early stage. Cultural considerations, ethical decision making, and use of artificial intelligence might effectively help in combating a public health emergency like COVID-19.

Cultural considerations:

Following are three cultural elements that can impact the spread and management of infectious diseases during an outbreak: According to the CDC's lessons gained from the Ebola Outbreak (CDC, 2013), the suggestion to avoid physical contact with a sick person simply goes against societal norms in most areas. Although direct patient contact increases the contagiousness of infectious diseases, such cultural factors make it challenging to contain an outbreak. (CDC, 2013) From a social perspective, urging individuals to use caution when providing care for unwell persons is better to advising them to avoid any physical contact.

Second, different people have different views about vaccinations. The idea of vaccination is still opposed by many groups or religions. Vaccines are able to control a number of infectious diseases. But "a number of important cultural perspectives on vaccination stem from (1) individual rights and public health stances toward vaccination, (2) different religious standpoints and vaccine objections, and (3) mistrust and suspicion of vaccines among different U.S. and global cultures and communities," according to a study. (Vaccines.org's History).

African communities, have a tradition of burying the dead, and the locals' band together to pay their final respects to the deceased. However, in these situations, community members come into close proximity and contact with the infected individual's corpse, thus exposing a sizable population to a person who may have passed away from a serious infectious condition (BMC Medicine, 2015). Ethical principles and preparedness plan:

Thirdly, according to research from BMC Medicine,

when culture and epidemics collide, as in the case of

the Ebola virus, some communities, especially

The first principle that needs to be included in the updated preparedness plan in relation to the use of isolation and quarantine during public health emergencies is to "Respect the Rights of the Individuals in the Community"; in other words, only the necessary restrictions should be put in place during a public health emergency. (2004) Landesman, p. 314. Quarantine will obviously not be helpful in suppressing spread of a disease that is not transmissible through common community contact.

For instance, Cuba's policy of requiring residents who tested positive for HIV to remain in quarantine, which was in existence from 1986 and 1994, would probably fail the litmus test of a successful public health intervention (Nola M. Ries, 2004, p. 02). However, in locations such as prison, where the area is limited to a confined area, the inmates have decreased access to healthcare services. In those scenarios, such measures would be beneficial for their health by preventing disease risk. (Kumar et al, 2023)

The second principle that ought to be used is, "Conduct public health actions in a timely manner with information and resources at hand" (Landesman, 2004, p. 314). According to CDC SARS guidelines, if exposed individuals (contacts) are quickly identified and their early isolation is done if they become ill, it can be a highly successful control method to avoid an outbreak like SARS (CDC, 2004). Therefore, a stronger surveillance system is crucial in this regard for the early detection of exposed cases and the prompt implementation of public health measures like isolation or quarantine.

The third step is to "provide information needed for decisions on policy or programs" (Landesman, 2004). The SARS outbreak presented challenges because of the disease's pattern, its protracted incubation period, the delayed onset of symptoms and its impact on individuals. (Anup AK, 2022) "For a respiratory virus, SARS-CoV has a lengthy incubation period: normally 4 to 7 days, although it can occasionally last up to 14 days. Patients with SARS may experience recurrent or chronic infections that could spread the virus to others. (LOW &McGeer, SARS one year later, p.1)

Ethical Decision Making:

The following are some potential effects (ramifications) of using the ethical planning process when preparing for emergencies for the public and emergency responders, especially medical personnel: First off, fundamentalism is a key factor in the process of making ethical decisions. The main criteria for health communities are also considered, in addition to the disease's main cause (Swain, p. 355). Following the SARS outbreak, it was discovered that "healthcare workers who cared for

patients, other hospital patients, and visitors were

often affected and, in many instances, propagated the outbreaks in the hospital and into the community" (CDC, 2004). Therefore, it is crucial to follow strict infection control procedures, which is a crucial demand that must be met.

The second concept is interdependence, which is defined as "achieving community health in a way that respects individual rights" (Swain, p. 355). The lessons from Quarantine and SARS state that "Quarantine restricts individual liberty by limiting freedom of movement and imposes various psychosocial burdens." (2004) Nola M. Ries, p. In addition to isolating people from the outside world, quarantine also threatens the livelihood of others, including healthcare professionals. For this reason, those who are confined should get financial compensation to make up for any financial losses they may have sustained while under quarantine. (2004) Nola M. Ries, p.

Thirdly, justice and fairness should be implicated while providing healthcare services to the general public by the first responders like doctors, nurses, and healthcare other professionals. Emergency preparedness and response is one instance where medical ethics openly exhibits care for the community in a way that is congruent with the public health sense of justice. (Kumar, 2022)For instance, the AMA Code of Ethics outlines in unambiguous terms the moral duty of physicians to intervene in emergency situations and offer assistance, "even in the face of greater than usual risks to their own safety, health, or life" (Swain, p. 355).

This ethical decision-making process is advantageous for the general population because it ensures that the healthcare facilities are available to all the people. (Tiwari, 2022) However, it is particularly dangerous for healthcare professionals who work in a hospital setting, such as doctors and nurses, because they put their lives in danger in the event of an epidemic of a highly contagious disease. Healthcare facilities accounted for a substantial fraction (typically >50%) of cases, as was discovered from the CDC Guidelines of SARS and Quarantine. (CDC 2004 Core document, pp 11).

Use of Artificial Intelligence:

As per tiwari et al. artificial intelligence programs like ChatGPT can be used as a tool for public health education to educate lay man if they are contracted by transmissible bacteria/virus as "ChatGPT could more effectively bring together clinical expertise and dialogic communication." Artificial intelligence also has "prospective benefits in personalized healthcare, the development of drugs, and the examination of enormous datasets."Medical and dental clinics can become more productive by adopting AI to speed up tasks currently completed by the dental professional and assistant during a pandemic when there is already a shortage of the workforce. (Tiwari, 2023)

Conclusion:

A pandemic like COVID-19 can be detrimental not only to the general public but also to the healthcare workers. The advantage that comes to both groups of individuals should therefore be considered when introducing the future disaster preparedness plan. Early epidemic control is possible if appropriate cultural factors are taken into account while creating disaster preparedness strategies. The approach for making ethical decisions might be modified as well so that it doesn't endanger the lives of medical personnel. And lastly, the incorporation of AI in healthcare systems can aid in extending care to more patients in lesser period of time during the time of pandemic.

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