



Stigma Linked to COVID-19

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

When it is safe to do so, medical professionals should not delay the treatment of patients who present with respiratory difficulties. Stigmatization of such patients can result in the unnecessary deferral of emergency therapy; this may lead to fatalities that could have been avoided.

Keywords: Stigma; discrimination; COVID-19; SARS-CoV-2.

1. INTRODUCTION

SARS-CoV-2, a coronavirus which gives rise to the COVID-19 infection, caused an outbreak in Wuhan, China, in December 2019, and led to a pandemic in 2020. Unfortunately, as seen with tuberculosis, HIV, syphilis, gonorrhoea, leprosy and plague during past epidemics, COVID-19 has been linked with stigma which can exacerbate existing inequalities and interfere with the adoption of preventive measures. This article

briefly delineates some of the stigmatizing events that people have experienced during this outbreak due to being labelled, sometimes incorrectly, as having been infected with SARS-CoV-2. Moreover, 3 cases are described to exemplify the consequences of stigma.

2. METHOD

The following keywords were used: (SARS-CoV-2 OR COVID-19) AND (stigma OR discrimination)

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OR stigmatization OR discriminate). PubMed was searched for all relevant articles from December 2019 to October 2020. 513 results were identified. Given the large amount of potentially relevant information from non-academic sources, the grey literature was searched using the Google search engine – the

first 150 sites were reviewed. Only articles that described examples of discrimination because of COVID-19 were kept for analysis. Articles written in a language other than English were ignored. 67 articles were determined to be pertinent to the topic under review (see references 1 to 67); Table 1 analyzes these articles in more detail.

Table 1. Categories of stigma associated with COVID-19. In the context of this article, the term violence is used as an umbrella term to mean verbal abuse, threats, doxing, harassment, hate crimes, murders or attempted murders, racism, xenophobia, and assaults

Description	Examples	Interventions
Category 1. Stigma towards people who are perceived to have the disease but who are likely not infected		
Denial of hospital / emergency services or provision of poor-quality healthcare services to victims [1-6]	<ul style="list-style-type: none"> - In India, patients, including pregnant women, with respiratory symptoms were denied admission at several hospitals; some of these patients died. - In Nepal, patients died in isolation wards due to poor management of sepsis from polytrauma; they did not have COVID-19 infection and treatment should not have been delayed. - In Bangladesh, a patient with hematemesis and sore throat was reportedly ignored and not provided emergency care; she eventually committed suicide. 	<ul style="list-style-type: none"> - Policies and regulations should be enforced to ensure that emergency services are always provided to patients within a healthcare facility
Avoidance of victims [5, 7-19]	<ul style="list-style-type: none"> - In Italy, reports suggest that the public avoided people perceived to be of Chinese origin - In Burkina Faso, neighbors started avoiding a patient who was tested for COVID-19 - In India, airplane crew members were stigmatized - In Egypt, a driver refused to transport a man of Chinese origin - In the USA, Black and Asian adults report more adverse events since the start of the pandemic; individuals who wear face masks feel discriminated - In Nepal, febrile patients were avoided by some healthcare institutions - In France, minority ethnic areas had to undergo longer curfews than other neighborhoods; Asians were kicked off from public transport - In the Philippines, a priest and a worker were socially excluded due to a potential contact with a COVID-19 patient and due to flu-like symptoms - In Bangladesh, a man was ostracized after developing fever and cough; he eventually committed suicide - In China, foreigners have been barred from entering some restaurants and some fitness facilities - Africans have been evicted from their apartments 	<ul style="list-style-type: none"> - Misinformation on COVID-19 should be minimized - The public should be informed that ethnicity is not a good predictor of contagion by SARS-CoV-2
Violence / harassment [12,20-43]	<ul style="list-style-type: none"> - In Italy, people of Asian origin were assaulted and accused of spreading COVID-19 - In the USA, police departments have reported 	<ul style="list-style-type: none"> - The rights of minorities to peace and security should

Description	Examples	Interventions
	<p>an increase in hate crimes related to COVID-19 against Asian Americans; children in schools have been bullied; Asians have been sprayed with air freshener; shops have been vandalized and restaurant windows shattered</p> <ul style="list-style-type: none"> - In India, forceful eviction, harassment and verbal abuse have been associated with COVID-19; migrant workers have been sprayed with disinfectants - In Israel, an Indian man was beaten in a coronavirus-linked hate crime - In South Korea, the LGBT community has faced COVID-19 related threats - COVID-19 related attacks, Sinophobia and bullying (including at schools) have been noted in France, Ireland, Russia, Australia, UK, Kenya, Egypt, Ethiopia, Cameroon, Nigeria, South Africa, Brazil and Malaysia 	be safeguarded
Category 2. Stigma towards people who have the disease		
Denial of hospital services or provision of poor-quality healthcare services to victims [44-48]	<ul style="list-style-type: none"> - In India, a pregnant woman was abandoned by her family after she was found to be positive for SARS-CoV-2 - In the UK, nurses have occasionally refused to treat COVID-19 patients. However, concerns were raised about the lack of PPE. - In the USA, some nursing homes have refused to take in hospital patients; they claim to be ill-prepared to face COVID-19 outbreaks; in Texas, a COVID-19 positive patient was refused treatment by a hospital; he eventually passed away - In Spain, some COVID-19 patients were not given access to hospital services 	<ul style="list-style-type: none"> - PPE must be provided in adequate quantity to all HCW so that they can deliver health services appropriately - HCW should be informed that once IPC measures are taken, the risk of contracting COVID-19 is minimal
Violence / harassment [49]	<ul style="list-style-type: none"> - In India, a dentist who tested positive for the virus, was mocked and had his photos taken without his permission 	<ul style="list-style-type: none"> - Confidentiality of patients must be maintained
Category 3. Stigma towards survivors of the disease		
Avoidance of victims [21, 44, 50-53]	<ul style="list-style-type: none"> - In Zimbabwe, people avoided the road where COVID-19 survivors lived - In the USA, COVID-19 survivors are sometimes branded as sinners and are avoided; support is inadequate - In Nigeria and Somalia, relatives are avoiding COVID-19 survivors for extended periods of time, long after they are no longer contagious - In India, COVID-19 survivors are considered as social outcasts - In Ghana, some storekeepers would not sell items to COVID-19 survivors 	<ul style="list-style-type: none"> - The public should be educated about the incubation period of the illness - Contact interventions between members of the public and COVID survivors may help to reduce stigma - Improve social and family support system
Category 4. Stigma towards people who care for the sick		
Avoidance of victims [21, 44, 54-61]	<ul style="list-style-type: none"> - In Spain, "healthcare professionals were asked by their communities not to go back to their homes, so as to avoid contaminating their neighbours" - In Nepal, healthcare providers faced difficulties finding food and shelter - In the USA and Canada, a good proportion of respondents to a survey believed that healthcare workers should have severe restrictions imposed on their freedom, including being separated from their family for 	<ul style="list-style-type: none"> - HCW must take all adequate precautions to ensure that they don't pass on any infections to their contacts - The rights to freedom of HCW must be protected - Systematic training and network meetings

Description	Examples	Interventions
Violence / harassment [4, 62-65,63,15,66,67]	<p>prolonged periods of time</p> <ul style="list-style-type: none"> - In Mexico and Malawi, healthcare workers were denied access to public transport - In India, doctors were asked to vacate their rented homes; dialysis staff felt stigmatized because of COVID-19; people distanced themselves from HCW and demanded to communicate electronically - In the Philippines, residents have put up barricades to separate themselves from hospital staff - In Colombia, HCW have been evicted from their homes <hr/> <ul style="list-style-type: none"> - In India, multiple assaults against healthcare workers have been described - Across the USA, doctors have received death threats and have been doxed; in Indiana, a doctor was kicked out of a gas station - In Indonesia, an ambulance driver was threatened for carrying the remains of a patient who died after being exposed to SARS-CoV-2 - In the Philippines, bleach was poured on a hospital janitor; medical workers were refused transport and laundry services - In Pakistan, doctors were attacked by relatives who believed that coronavirus is a hoax - In Bangladesh, bricks were thrown at the house of a doctor - In Colombia, doctors have been threatened for 'profiting' from 'fake' COVID-19 infections; faeces have been thrown at doctors - In Russia, ambulance workers have been attacked by a mob - In Mexico, HCW prefer to use bicycles instead of public transport due to public assaults 	<p>can help reduce burnout and stigma</p> <hr/> <ul style="list-style-type: none"> - Violence against HCW should be condemned by everyone including the media - Misinformation should be countered - Hospitals should invest in health security measures - Risk assessment should be initiated and measures should be taken to enforce the law

2.1 Categories of Stigma

Stigma associated with the fear of contagious illnesses can have serious consequences. The author proposes to divide social stigma targeting persons who are sick from infections, into 4 categories: stigma of people who are perceived to be carriers of the disease but who most likely are not infected, stigma of people who are actually infected, stigma of people who were infected but who have recovered and are no longer contagious and stigma towards people who care for the ill. The author decided to separate the first and last category since violence against healthcare workers (HCW) is a significant issue that deserves specific attention. Examples of stigmatizations are summarized in Table 1. each category can be subdivided into 3 groups: denial of healthcare and other emergency services or the provision of poor-quality healthcare services, avoidance of victims, and violence or harassment of the vulnerable denominator of society. Of note, self-stigma

should also be recognized as a pressing problem; an example is mental health stigma among the elderly who will not seek healthcare because of fear of discrimination [68].

2.2 Examples of Stigma

With respect to the first type of stigma, the victims are usually people who present with respiratory symptoms, minority groups (especially of Asiatic origin, migrants or foreigners), persons who have been tested for COVID-19 and who are awaiting their results, or individuals who have had contacts with 'outsiders'. An example of refusal to provide healthcare services, is the unwillingness of certain hospitals in India to treat pregnant women complaining of cough and fever, sometimes leading to death. Label avoidance can take many forms: withholding day-to-day services (e.g., denying the right to buy food or to get on public transport), demanding that certain categories of people do not return home to their

families, preventing the establishment of quarantine centers in certain communities or the preferential lockdown of areas where minority groups live.

Nursing homes refusing to take in asymptomatic SARS-CoV-2 positive patients may be considered as an example of the second type of stigma, especially if the nursing home is able to take all necessary precautions to prevent the spread of the disease. On the other hand, if isolation facilities are not available, it would be reasonable for these nursing homes to refuse to harbor such patients in order to protect the remaining residents from potential infections.

An example of the third category of stigma is when shops refuse to serve COVID-19 survivors even after they are no longer contagious. Regrettably, cases of the fourth category of stigma abound: in many places across the world, healthcare workers have been asked not to return to their neighborhood to avoid the propagation of disease. Table 1 explains these points in greater detail

2.3 Case Study of 3 Examples

Hereafter, real-life examples of the first category of stigmatization will be described with a special focus on unreasonably procrastinated medical treatment. Of note, these cases occurred in March and April 2020 in institutions that are expected to follow COVID-19 protocols as laid out by the World Health Organization.

Case 1

A gentleman in his early eighties was transferred to our institution with pyrexia due to a liver abscess. Overnight, he went into respiratory failure after an aspiration event. A chest x-ray revealed bilateral infiltrates. Decision was made to intubate him; however, due to on-going concerns regarding potential infection by the coronavirus, some HCW preferred to delay intubation until the results of a polymerase chain reaction (PCR) test for the SARS-CoV-2 virus became available, conceivably because a negative pressure isolation room was not accessible at that facility. The patient died a few hours later. The results of the PCR came back as negative a day later.

Case 2

Another man in his early fifties was admitted at our institution with fevers and back ache. A physical examination uncovered a perianal

abscess which was incised and drained. A chest x-ray showed bilateral infiltrates. A few hours after admission, his systolic blood pressure (BP) dropped to the seventies and the on-call doctor advised that inotropes should be started if fluid boluses failed to improve his BP. Regrettably, he passed away soon afterwards; pressors were never begun, due to fears linked to catching the coronavirus (since frequent BP measurements would be needed if noradrenaline was initiated). Once again, his SARS-CoV-2 PCR turned out to be negative. The pulmonary infiltrates could have been secondary to septic emboli which can occur in the presence of abscesses [69]. However, infection with SARS-CoV-2 cannot be completely ruled out since false negative results can occur with the PCR test.

Case 3

A young boy in his twenties was shifted to a hospital because of shortness of breath, fever and cough. His oxygen saturation on room air was 80%. Physical examination disclosed jaundice. Upon further questioning, he confirmed that he had contact with rats at his house. A chest x-ray revealed bilateral infiltrates while lab results confirmed the presence of an acute kidney injury. His condition deteriorated rapidly, and intubation was advised. However, staff preferred to wait for the results of a SARS-CoV-2 PCR. A day after he passed away, the PCR was noted to be negative. This patient likely had leptospirosis which can sometimes be complicated by pneumonia, pulmonary haemorrhage or acute respiratory distress syndrome.

In all 3 cases, timely medical treatment was delayed due to fear of contracting SARS-CoV-2. Furthermore, it is likely that premature closure (a type of cognitive bias) played an important role in the misdiagnosis of these patients, a phenomenon that has been observed elsewhere during the COVID-19 pandemic [70]. Although most hospitals in Mauritius do not have negative pressure ventilation (NPV), several SARS-CoV-2 patients have been intubated in this country without any of the surrounding staff catching the virus; the World Health Organization recommends natural ventilation when NPV is not available as opposed to postponing mechanical ventilation.

2.4 Consequences of Stigma

Unfortunately, discrimination linked to COVID-19 is widespread globally – consequences can be

dire. For instance, in Thailand, in order to avoid such prejudice, symptomatic travellers have been caught lying about their recent trips [71]. Such patients may hide their symptoms and will not seek medical advice promptly. In India and Germany, coronaphobia has been associated with suicides [72-74]. Furthermore, stigma can worsen the Corona Stress Syndrome, lower self-esteem, increase anxiety and hamper contact tracing efforts and isolation measures.

It should be noted that patients with psychiatric co-morbidities may face worse challenges and may be less able to cope with stressful circumstances [75]. In addition, ageism has worsened during this pandemic [76].

It is clear that HCW encounter demanding situations within the healthcare setting due to (a) a lack of personal protective equipment (PPE), (b) constant exposure to a deadly virus, (c) poor access to SARS-CoV-2 testing, (d) understaffing, (e) anxiety about potentially infecting their families, (f) occupational burnout and (g) inadequate working conditions (e.g. HCW sleeping on the floor in certain hospitals) [77,78]. In some cases, excess mental stress has led to HCW committing suicide [79]. However, even though taking care of suspected or confirmed COVID-19 patients can be psychologically strenuous, provided a reasonable amount of self-protection by PPE is at one's disposal and staffing is adequate, all HCW have a moral obligation to help their patients during emergencies. Unfortunately, in some countries, urgent care is being needlessly deferred [77].

2.4.1 Causes of stigma

Stigmatization stems from incorrect beliefs about the probability of transmission of the virus. Such poor judgement can occur due to persistent uncertainties about the virus, lack of confidence in the healthcare system and unreliable infodemic. Several studies suggest that, once the right infection prevention and control precautions are taken, nosocomial transmission of SARS-CoV-2 is relatively uncommon [80-83]. Zhang et al. demonstrated that the risk of intubation-acquired COVID-19 is less than 5% and generally does not result in severe disease [84]. In another study, less than 1% of patients exposed to infected HCW got infected [85]. Moreover, intubation has been shown to lead to substantially less dispersion of aerosols than initially anticipated [86,87]. Social amplification of the dangers of infection and catastrophizing risk-taking can exaggerate fears.

2.4.2 Interventions to reduce stigma

Key interventions that should be implemented to reduce stigma can be classified into the following groups: educational activities, skills-building activities, increasing contact with the stigmatized group, empowering individuals so that they use better coping mechanisms, making policy changes and in some cases, pushing for public protest [88,89].

So far, most research has centered around cutting down stigma surrounding HIV. A similar approach may be utilized to combat COVID-19 related discrimination. Dissemination of accurate information regarding the virus without exaggerating its complications, helps in curtailing inappropriate apprehension linked to COVID-19. Other measures include the use of a positive, non-racist language when discussing aspects of SARS-CoV-2, acknowledging the existence of stigma, supporting those who have been stigmatized, enforcing policies and local regulations that help protect those who are likely to be prejudiced and protesting the spread of lies, misconceptions or harmful rumors and myths [90-93].

3. CONCLUSION

This article highlights the dangers associated with stigmatization, gives examples of such discrimination, categorizes stigma linked to infections, discusses the need to act quickly during emergencies, points out how fear linked to COVID-19 can indirectly cause deaths, emphasizes that, once adequate precautions are taken, HCW should not be scared of intubating patients and proposes a number of interventions to reduce the negative impact of stigma.

CONSENT

It is not applicable.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

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