



Handling COVID 19: Minimizing our Blind Spots by Using Checklists and Promoting Collaborative Culture

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Abstract

“Blind spots” may refer to a topic, a theme or an area where we lack understanding, are unable to see it clearly, do not realize how critical this particular area is, or it represents an area where we fail to exercise judgement or execute discrimination. Blind spots may be at the individual, organization or even governmental level. Whenever we are unaware of something, whether it is in our physical environment, how we behave or our personal attributes, there is the potential for a lack of insight which can take place at a critical moment or time. Even as everyone and every organization want to be prepared to handle challenges and crises, there may be blind spots, which might be overlooked. Thus it is useful and practical for us to be aware of this, be more ‘conscious’ about it and have review from a ‘fresh pair of eyes’. Working in inter-professional and collaborative teams, with open mindset, simplifying complicated and hierarchical work processes, having backup contingency plans as well as adapting to the rapid changes are some suggestions to help minimize these blind spots. The author is an emergency physician in Singapore, working at the frontline and shares candidly her views and opinion in this paper.

Keywords: COVID 19; Blind spots; Complacency; Public Health; Supply Chain; Mental Health

Introduction

Blind Spots in our World

Physiologically, every human eye has a blind spot. Each of our eyes has a tiny functional blind spot. This is the area, where the optic nerve passes through the surface of the retina and there are no photoreceptors. Due to this, there are no photoreceptor cells detecting light and thus, it creates a blind spot [1,2]. Besides this, blind spot can also mean the area whereby a person’s view is obstructed, such as the blind spot when driving a vehicle and looking through the rear view mirror. There may be a small area which is not visible to our normal vision [3]. Extrapolating this to a broader perspective, a “blind spot” could refer to a topic, theme or area where we may lack understanding, are unable to see it clearly, do

not realize how critical this area is, or it represents an area where we fail to exercise judgment or execute discrimination [4]. Blind spots may be at the individual, organization or even governmental level. Whenever we are unaware of something, whether it is in our physical environment, how we behave or our personal attributes are, there is the potential for a lack of insight which can take place at a critical moment or time. This is where blind spots can be.

There may be various reasons why we have these blind spots. Some examples would include: [5-7]

- a. Our pre-occupation with certain aspects or areas, which cause us to forget about or overlook another area
- b. Our lack of awareness of a particular area, because it may not be one of our ‘pet topics’ or area of specialty and

- thus it does not come into the repertoire of our expertise
- c. Certain fixations we may have, which will make us look at or approach topics or situations, in a certain way only
 - d. Being overwhelmed with certain areas of work that it drowns or blurs out other aspects that we may need to consider
 - e. Not consciously looking into a particular aspect or situation may result in this being our blind spot [5], and
 - f. Our personal habit, behavior or attribute, which affects the way we approach situations [6].
 - g. It is at times easier to recognize and look into these 'blind spots', once they have been highlighted to us and we have been made aware of them. Blind spots can plague even the best and most experienced amongst us. Leaders too are not exempt from this [6]. With hind-sight, these areas tend to become obvious and clearer to us. In healthcare, the term "retrospectoscope" may be used, as it represents a colloquial term for medical hindsight. Being conscious about our blind spots, should make us more collaborative; working in teams where each member will have their own strengths and weaknesses, be more receptive and open to getting feedback, which is a gift from our colleagues, team-mates and even employees [6].

The COVID 19 Pandemic

The COVID 19 pandemic represents an inflection point in our history, affecting our lives and livelihood. It continues to ravage the world as we chart our course and plan our footprints into the future. It is leaving us with many challenges and multiple lessons. Just like with previous outbreaks (eg. SARS, MERS, Ebola), many changes and evolution in healthcare have been sparked off from these experiences. It is all part of the lessons we learn from a crisis and the opportunities we create through the challenges we encounter. Due to COVID 19, certain adoption and adaptation, as well as disruption have been brought forward. These served as the impetus for change, for us to accelerate our plans, drive innovation, capitalize on technology and also transform how we deliver healthcare and other services [7,8].

In the handling of COVID 19 itself, there were variations and customizations across nations, and healthcare systems. Each of these may have encountered unique challenges and issues which were dependent on a variety of factors such as the existing healthcare system, the level of disaster and outbreak preparedness of the system/ country and even the culture of the people living in the society. Even as the World Health Organization (WHO), presented directives, published papers, and framework to guide nations in their approach to managing the pandemic, many decisions and course of action still lie within the jurisdiction of the local government, institution and people. An example to illustrate this would

be China, where the COVID 19 reported statistic does not include those who are tested positive but are asymptomatic [7,9,10] the reality we have to face is that our modern healthcare systems are facing substantial pressure from this COVID 19 pandemic, and yet have to remain versatile and dynamic to handle the demographic changes as well as affordability constraints. Nonetheless, we must all work together to articulate and execute the health response that will mitigate public harm from this new virus.

In managing the pandemic itself, it would have been realized that there were many aspects of a whole continuum of strategic interventions which were required: from medical management, socio-economic management, psychological interventions, to managing day to day practices such as going to school and work. COVID 19 has showcased some best practices, but it has also exposed some weak spots in certain healthcare systems [7,10]. Due to the sudden acute impact as well as the sheer numbers of patients in many countries, there was a rush to roll out coordinated and tested emergency preparedness responses. The cognitive load facing leaders as well as workers, especially those at the frontline was tremendous. Thus certain issues may have been overlooked or even missed [11-18]. In handling such broad and multi-faceted challenges, all hands must be on deck. All minds should be tapped. It also means, there may be many more potential oversights which might happen. These are the blind spots...

The Blind Spots during COVID 19

COVID 19 represented a completely different pandemic from SARS, in terms of scale, magnitude and manifestations. It presented us with a very new and unique plethora of issues and challenges. COVID 19 taught us the importance of up-to-date risk management in institutions, organizations and countries. It highlighted how important it is for organizations to be prepared to handle external shocks, and whether they have contingency plans. It is a test of their resilience and process efficiency. Many around the world were not prepared. Many of our systems were not ultra-ready for the multitude of and onslaught of challenges 'raining down' on us [7,19,20]. This was indeed a fertile setting for blind spots to occur.

It thus becomes very crucial for people in leadership and management to realize the likelihood for blind spots to co-exist, even with extremely good systems. This means people must learn to shift from just operational thinking to the bigger picture, strategic direction setting, with good oversight and a helicopter view [6,20]. It is important to be able to listen to each other, collaborate, share ideas and opinions, ask for feedback (and act on them as necessary) and work with high functioning teams. Many of these

inter-professional teams from within similar and different organizations had to be put together at short notice when the pandemic struck. Thus people will find themselves working with persons they have known and worked with, or with complete strangers, tackling a common enemy in the COVID 19 virus. This way, our mindset must move from just 'being right' to 'being informed'. It might become harder to lose track of even the smallest situation, when so many different leaders and representatives are present, to ensure their own individual as well as collective interests are highlighted and addressed.

Today, after going through some 8 months of the pandemic and applying our 'retrospectroscope' and hindsight, the following section shares some blind spots that have been observed.

Complacency

This term refers to a feeling of uncritical or calm satisfaction with one's own abilities or the handling of a situation that it may prevent you from going further or trying harder. This satisfaction may thus be short-lived [21]. During COVID 19, the initial country to be significantly affected was the province of Wuhan, China. [9,10] During these early stages, many other nations had the impression that the disease would never make it to their shores. They felt it could be like another SARS outbreak, where mostly East Asia and South-east Asian countries were affected. This may have caused them to not prepare early, not executing initial screening for patients presenting to their Emergency Departments (ED) or hospitals and for travelers returning from the east. Would the outcomes have been different, if they had gone into the 'preparatory' phase earlier? No one will know the answer to this question now.

During the course of COVID 19, as we noticed the rapid spread and infectivity of the virus, some groups of people were counting on development of herd immunity in their communities and thus, this mindset might have created a blind spot for them in not wanting to push further and look for interventions or continue to test their population extensively [22-24] Herd immunity can only be achieved effectively when one infected person in a population infects less than one other person (secondary case) on average. Currently, there is little evidence to suggest that the spread of COVID 19 might stop before at least 50% of any population has become immune. We also do not know how long the naturally acquired immunity will last. Reports of reinfection cases have been seen but as to whether this is a rare phenomenon or it may become a common occurrence, is still unknown. The long awaited effective vaccine that may be the safest way to reach herd immunity, is not likely to be ready for some time still [22].

Another example would be that of countries opening up and changing their advisories too soon, as they start to see numbers of positive cases in the community starting to dwindle downwards. As we have seen, opening up too early may result in second and third waves of COVID 19 cases surfacing again. These poorly coordinated re-openings have contributed many more patient statistics towards the global COVID 19 numbers [25,26].

Ignoring Non-Pharmacological Interventions

During the early stages of the outbreak, when WHO was still grappling to collate information, certain advisories kept changing. When the infectivity and spread became more apparent and numbers started to rise rapidly across many countries, advisories on restrictions and wearing of masks were shared [7,8,11]. However, there may have been communities and groups of people who may have neglected this and continued to gather in large groups, or continued with their partying. In fact, in some nations, large group demonstrations were started by some, going against the use of masks and refusing to abide by distancing and other gathering restrictions. This may appear as openly defying behavior or just being complacent that their countries or communities are immune to getting infected [27,28]. The failure to learn from others, having a dismissive attitude or not paying attention to details (eg. allowing healthcare staff to use expired personal protective equipment) all represent blind spots we may have had [28].

Concomitant Public Health Issues and Other Diseases

As we were all busy managing the high numbers of patients presenting with COVID 19 or suspected of having the disease, there was an urgent need to understand new workflow processes diligently in order not to miss potential COVID 19 cases and to ensure they are isolated appropriately according to institution guidelines. During this period, patients with other problems and the 'usual' cohort of ED patients may continue to come in, although the numbers may be less. Our pre-occupation with COVID 19, may create a blind spot for us in making other diagnoses. For example, in Singapore, our endemic dengue fever cases continue to come in to the ED and primary healthcare clinics. The symptoms of presentation for both dengue and COVID19 are very similar and whilst we may focus on the latter, we may tend to forget the former. Dengue and COVID 19 do share many common clinical and laboratory features. If we diagnose dengue based on a rapid laboratory test and fail to pick up that this patient is also COVID 19 positive, there may be implications not just for this patient, but also for public health [27]. In other countries where dengue, malaria and other infectious diseases are endemic, these may pose challenges in the

context of the COVID 19 pandemic [27,29].

In some front line departments, the clinical pathways, right from the time of screening, can be rather complex. Healthcare workers might get 'thrown off' by these. As a result, these can turn into a blind spot area [27,28] There is benefit in frequent communications with the leadership to help explain these necessary steps [6] There is also value in simplifying protocols during periods of pandemics, outbreaks and upsurge. Complexities can indeed be our blind spots. It is useful for us to adopt strategies such as to be clear and concise in words and action, to be targeted on which operations are really necessary and to simplify the infrastructure for information sharing. One area which is very cumbersome and can complicate workflow is decision hierarchies. It would be good to ensure our algorithms are clear. This would minimize the need to call and consult others too frequently and ensure that the target behavior objectives that have been set, are met [30,31].

Politicizing Issues

During pandemics, it is not uncommon for the government of the day or certain key opinion leaders to come forth and make comments or share their views. These can certainly affect mindsets of the public and create certain blind spots inadvertently [32-35]. Some examples may be the promotion of wearing of masks by one political party and not wearing masks, by another party, or publicizing vaccines readiness before these have been put through all stages of testing and clinical trials [6,11,35]. The latter might have been done as it may be prestigious to 'win' in such a competitive environment, especially with the pandemic looming distinctly in the background. Questions and issues which may thus be linked to scientific reasoning may become affected by political motives, at various stages and on various platforms [7,34].

Potential Zoonotic Reservoirs

Whilst everyone is busy and focused on managing humans, animal infection and harboring of viruses might be an oversight. (36) For example, we are still uncertain of the impact on the feline and canine communities. As some of these animals are our pets and closely interact with human beings, there can certainly be associated risks. Research is still ongoing with other animal species [36-39].

Effect on Public Infra-structure

With COVID 19, we had very little initial understanding as to whether the infection could be transmitted through water and the sewer systems. In a few countries, relevant experts

were taking samples to study this effect if any. Transmission through shipping and freight industries too may represent our blind spots. In fact because studies showed the COVID 19 may stay on fomites for prolonged periods, many more things and products that people deal with daily may become potential sources for spread. Even touching inanimate objects, sitting in public transportation and public spaces may seem as potentially a source of spread [29,32,33]. What we have to do is to continue to mobilize the public to slow transmission. Public messaging will help reduce community panic and mitigate the unnecessary consumption of limited medical resources by the "worried well" segments of society.

Supply Chain Vulnerabilities

Due to lock downs, stay home notices, quarantine orders, the closing of borders between countries as well as reduced aviation and shipping activities, the usual supplies and produce coming in might be affected. Alternative sources and diversification of supply sources must be founded and sought. If countries did not look into these early, there may be eventual challenges in ensuring sufficient products for the population. Countries had to learn to rely on multiple strategies to strengthen their supply chain and close gaps which had developed due to COVID 19. This also provided a platform for greater cooperation between new partners as well deepened as transatlantic cooperation [39].

Mental and Psychological Health Issues

COVID 19 will be remembered a large scale pandemic with significant impact on all aspects of mental and psychological health. Whilst it may be a general weakness in many systems, whereby physical care is isolated from psychological care, we cannot run away from the fact that a patient admitted with COVID 19 pneumonia may have psychological manifestations. On the other hand, a patient admitted for psychological problems may get COVID 19 and will thus require the appropriate treatment. It is simply important to integrate mental health care with all other types of physical medical care [40]. It should not represent a blind spot. During COVID 19, with 'stay home notices', quarantine orders and safe distancing enforcements, a significant blind spot would have been, not planning for the many patients with mental illnesses who require medication top-ups, regular counseling and consultations, as well as the fact that social isolation can worsen their psychological symptoms and manifestations [8].

Yet another often overlooked area is the psychological wellness of the healthcare staff. During COVID 19, we know the trials, tribulations and levels of stressors they have to face. With long hours at work, in PPE (personal protective

equipment) , managing critically ill patients, making ethical decisions and handling emotional family members can be extremely draining. Thus their psychological wellness cannot be a blind spot. It must be mainstreamed into all aspects of planning [5,8,11].

Dentistry

Whilst many were focused on proving medical care and frontline care, the area of dentistry may have been given a 'back seat' or may have faded into our blind spot. Although dentistry may not strike us as an emergency area of healthcare, there are dental emergencies and urgent care which may have to continue, even during a pandemic. In many cities, communications and preparation for dental care and services were not given the same focus as general medical care. Many dental clinics may lack contingency plans which then affected their process efficiency. For many of these dental clinics and facilities, this may be their first foray into planning and preparing their clinics for operations during a public health pandemic [41].

Persons with Disabilities

When COVID knocked the 'doors of our nations', a lot of planning happened with haste that the group of patients and persons with disabilities needing regular care, follow up, befriending and other aspects of socio-economic-medical support may have been overlooked. It may be tougher for this group as they may have mobility and movement problems or, they may become symptomatic if they run out of their regular medications. All these may arise from changes to clinic follow up appointments, advisory on staying home and social distancing and even enforcement of some of these due to having them enacted into laws. Caregivers may not have been able to visit their family members who live apart due to come of these laws and advisories. Therefore, these are lessons for policy makers and governments so that these considerations can be mainstreamed into future large-scale, nation-wide pandemic planning.

Security

With pandemics, traditional security paradigms can have some serious blind spots as this apparently may not incorporate all threats pertaining to human security. It may be one of the last things on minds of planners and administrators. In order to overcome this being a blind spot, it will help if organizations and institutions prepare a checklist to use in their emergency or pandemic preparedness and incorporate this as an area of concern. This is essential as we live in an era where cyber security threats are rampant and widespread.

Maintaining Patients Privacy and Confidentiality

With outbreaks and pandemics spanning the global scale as well as the sharing of information across nations, which may pertain to clinical characteristics, treatment and research findings, the risk of breaching patient confidentiality clauses can be very easily overlooked. Moreover, the extensive use of technology and artificial intelligence can bridge critical governance gaps. The use of these to diagnose infections and perform syndromic surveillance capabilities through the use of demographics such as race, chest X-Ray findings and other parameters for contact tracing are indeed potential for breaches to occur. We cannot ever compromise or sacrifice patients' privacy and confidentiality, even during these unique situations.

Vulnerable Communities

As the pandemic continues, we can continue to learn from the blind spots of others. Some of the vulnerable population and communities that have been noted from this COVID 19 outbreak include:

- Senior homes, nursing homes and elderly care facilities
- Childcare and preschool facilities
- Certain work places and offices
- Dormitories and hostels, where distancing measures were not implemented
- People and congregations that flout the rules of distancing and safety measures

When we read of reports of outbreaks in some of these facilities worldwide, it acts as a memory jerk for us to look into our own vulnerable population and communities. Being connected, having open discussions and interacting (virtually) with our global communities of practice help us overcome some of our own blind spots.

Conclusion

COVID 19 is a pandemic that has taught us to practice with a "big heart and an open mind". Our generosity and graciousness in sharing and working together should never be under-estimated in terms of what this can do to help us be more conscious, more aware, more connected as well as in minimizing our blind spots. Changing our attitude and behavioral practices, making our work processes succinct and clear as well as deepening our understanding of new, emerging infectious diseases are critical. (Table 1) All these can be achieved by building bridges and managing our egos, together. What we build and inculcate today must be able to endure the current, as well as the future challenges.

Table	Steps to Reduce Blind Spots
1	To work in inter-professional teams and collaborative groups
2	To work with an open mindset, with frequent brainstorming sessions, encouraging others to contribute and participate
3	To practice more consciously (knowing that a major part of what we do daily tends to be sub-conscious)
4	Always have a Plan B, or even a Plan C for back-up
5	Simplify work processes. The more things there are to do, the more potential blind spots
6	Changing our behavior, attitude and outlook: enhance your interest and passion, whilst maintaining vigilance
7	To manage our egos
8	Really listening to others' views and contributions
9	Always show genuine interest on the desired outcomes and end results . It is linked to satisfaction for the work done
10	Strive to deepen understanding on matters and issues we deal with

Table 1: Steps to Reduce Blind Spots.

Conflict of Interest

The author has no conflict of interest to declare.

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