



CHANGES IN LEADERSHIP DUE TO COVID

Dr. Anamitra Roy

Director, Concept Research Foundation (Educational Initiative), Kolkata, India.

<https://doi.org/10.47211/idcij.2026.v13i01.010>

ABSTRACT

COVID introduced an uncertainty in human lives. There were changes in almost every aspect of life. Leadership was not an exception. There were changes in leadership also. This study aims to explore those changes in leadership that occurred due to the pandemic.

Leadership continues to be one of the most prominent areas of study. During the pandemic, everyone needed a leader. This fact establishes the importance of leadership during COVID. These were the times which were different from the normal times. Hence, leaders had to change their leadership. They did so to maintain their effectiveness and efficiency. That gave ample scope of research on the changes in leadership due to COVID. A comparative analysis has been drawn between leadership in the previous era and the same after the commencement of COVID.

The current research aims at solving problems and refining the already existing knowledge in this and similar domains. So, it is an applied and refining research. This research is based on secondary data because it deals with topics that are not static and gives a better view when not quantified.

The investigation revealed that evolution of leadership is a constant process. It was observed during the COVID pandemic also. Leaders in this era need to be academically strong to embrace changes arising from the constant evolution. Data of leadership prior to the pandemic is about thirteen thousand years old whereas that of periods after the commencement of the pandemic is about four to five years old. So, no comparison is possible between the two sets of data. Hence, the fundamental principles of leadership should rest on the data of thirteen thousand years. Today, leadership is more of a psychological work. In this era, leaders need to be technically sound. Since, communication by the leaders are getting documented, their honesty and integrity will always be under review. In order to maintain the speed of operations, leaders will have to be physically fit.

Key Words: COVID-19, Pandemic, Leadership, Leadership Change.

ABOUT THE AUTHOR



Dr. Anamitra Roy is Director of Concept Research Foundation (Educational Initiative). He serves as reviewer for several international research journals and has reviewed numerous manuscripts till date. Dr. Roy has authored multiple international publications. Prior to entering academics and research, he gained over seven years of experience in the operations of profit-seeking academic institutions.

Dr. Roy holds a PhD in Management and is an alumnus of University of Calcutta (India), University of Wales (U.K.) and Himalayan University (India).



INTRODUCTION

The spread of a new corona virus in Wuhan, China in December, 2019 emerged as a global pandemic in a short span of time (Singh & Kumar, 2020). This introduced an uncertainty in human lives. The World Health Organization officially announced pandemic on 11 March, 2020 (Isautier et al., 2020). It was a new and unique event (Balasubramanian et al., 2021). It was one of the hardest challenges that the human race faced in recent times (Egitim, 2022). This situation led to a global crisis that touched all the aspects of our lives, including family, education, health, work and relationship between leaders and followers in the society (Hinojosa et al., 2020, Aslam et al., 2021, Parveen et al., 2022). No one living on this planet in early 2020 when the pandemic commenced had ever experienced anything like this before. That is why there was an element of shock in everything. The changes were speedy, sudden and total in nature. There was no similarity between the situations prevailing after the commencement of the pandemic and prior to it. This meant that individuals, organizations, states and societies did not have much time to adjust to these changes. It was a period of total confusion.

Prior to this pandemic, the world did see pandemics. But that was about one hundred years ago and it was the incidence of the Spanish Flu. At that time, the world was different. 'Globalization', 'internet' and 'consumerism' had not become household words. The different parts of the world were not connected to each other. There were invisible walls segregating different parts of the world. It was not known to people in one corner about what was happening in the other corners. The nature of life was such that there was no need to know what was happening in remote areas. Every aspect of life was connected to the local. The word 'global' was rarely used. So, there were not too many changes in leadership during or after that pandemic. Thus, in those periods there was no need of research about leadership or changes in it due to disasters like pandemics (Fee, 2017).

COVID-19 was different. This was the first pandemic where millions of organizations, large and small, in scores of countries, had suspended normal operations (Lee et al., 2020). There was an emergency requirement of managing life in a different way. Thus, different directions had to be given to people. This is mostly done by leaders. It was a challenge for leaders throughout the world to change all aspects of leadership and make them available to their followers (AlMazrouei, 2023). Thus, the COVID-19 pandemic presented an ultimate test for leaders across the world (Dirani et al., 2020). In a crisis like this, leaders could be available for cultural shock which could leave them paralyzed (Fink et al., 1971). Moreover, holding on to one leadership style or selecting the wrong leadership style during a crisis could lead to ineffective leadership (Vera and Crossan, 2004). Hence, as the pandemic continued, the world needed to develop strategies to alleviate the stress associated with the pandemic as it went on to cause havoc at a global level (Shakespeare-Finch et al., 2020).

However, in many parts of the world, leaders were not able to perform their roles effectively. For example, ineffective leadership during the pandemic in some regions contributed to very high recorded death rates. It was pointed out that during this pandemic, some leaders not only failed to instill hope but also led organizations with toxic leadership styles that were destructive to organizational culture.

RESEARCH PROBLEM

Leadership is the ability to inspire individuals to accomplish goals with excellence creating a caring and disciplined environment (Blackwood, 2013). Leadership can be created by highly skilled leaders possessing social competencies that accept challenges as an opportunity and devise strategies to gain competitive advantage (Tal & Nazarov, 2020). When lives are at stake, a good leader will provide a positive contribution for an organization or a country while a bad leader will cause a fatal outcome (Wilson, 2020).

Several studies on leadership during a pandemic include Kleinhuber and Hermann (2020), Dirani et al. (2020), Hatcher (2020), Cherneski (2020), Chuang et al. (2020), Escotet (2020), Fitzgerald and Wong (2020), Grint (2020), Lee (2020), Jamieson (2020), Henrickson (2020), Siuda-Ambroziak and Bahia (2020), Thomson (2020), Vroman and Danko (2020), Spector (2020), Wilson (2020).

Despite the huge volumes of literature available, leadership continues to be one of the most prominently attractive areas of study and research (AlMazrouei, 2020).

The continual disruption caused by rolling lockdowns instated by governments at the national and state levels resulted in challenges in adjusting to the "new normal," resulting in the possibility of negative reactions and



Increased disorder (Steel, 2020). So, the situations prevailing made this topic (leadership) particularly important during the COVID pandemic. Epidemics and pandemics produce feelings of anxiety and panic (Chatterjee et al., 2020). Stress creates feelings of tension and anxiety in many aspects of life (Kihara and Mugambi, 2018). Thus, this being a period of anxiety and panic, there was stress and tension. At these times, everyone needed a leader. This fact establishes the importance of leadership during COVID. These were the times which were different from the previous times. Hence, leaders had to change their leadership model. They did so to maintain their effectiveness and efficiency. Moreover, a crisis, however terrible in its consequences, is also a great opportunity to study and create new models of leadership—in that respect COVID-19 was one of the biggest "opportunities" in human history (Gregston, 2023). That gave ample scope of research on the changes in leadership due to COVID.

OBJECTIVES

This research is a study of the changes in leadership due to COVID. Thus, it was important to draw a comparative analysis of leadership before and after the commencement of the pandemic and explore the elements of change brought in by the pandemic.

METHODOLOGY

Now, that the pandemic is coming to a halt/ end the researches have started to commence. These researches are on various aspects of the pandemic. Most of these are based on primary data. The reason being, that it is now possible to collect such data.

So, there is no dearth of research on changes in leadership during COVID. Most of these researches are based on primary data.

Thus, this research aims at solving problems of leadership due to COVID and understanding the changes. It aims at refining the already existing knowledge in this domain. From that standpoint, it can be concluded that this research is an applied and refining research.

It is based on secondary data collected from prior researches. The investigator pursued this research based on secondary data with an objective to compile the prior researches and save time. The world is now recovering from a pandemic. Environmental pollution and increase in human population are believed by many scientists as two factors that may drive us to a quick and sudden pandemic again. There is also no assurance about whether the ongoing pandemic has come to a permanent end or this is just a temporary halt. Thus, the world needs to be ready with the knowledge of leadership changes due to COVID. And, that has to be done promptly. Moreover, the significance of creating collective wisdom to prepare for future crises is even more critical given that we are awaiting several crises to unfold (the "next pandemic" or the "next global recession" features on everyone's future crisis list) due to the increasing uncertainty that the world faces as a result of climate change, political conflicts, war, and cyber-terrorism (Soete, 2021). Thus, there was a necessity to come up with the current research based on secondary data in order to save time.

Most researches pursued on this or similar domains, have taken a quantitative approach. Quantitative methods measure only static moments of time whereas qualitative research is a flexible model of communication and is a mass platform to share sentiments (Zhang, Jansen & Chowdhury, 2011). So, the justification for choosing a qualitative approach in this case is that the current research deals with a topic that is difficult/ almost impossible to quantify.

DATA

When we use the words 'leader' and 'leadership', we mostly use them in the context of the human civilization. However, these words can be used outside of humanity also. There are different species of animals and insects that also are influenced by their leaders. Their leaders help them to succeed and prosper. Cows simply follow one leader. Even when the leader is wrong, cows follow the leader unquestionably. There is no fight among cows about the position of leadership (Soule, 2018). Another great example of leadership among insects is the honey bees. They have a democratic leadership in most cases. The queen bee has the choice of finding a new home with the help of her followers (Van, 2008). Similarly, leadership is of great significance in ant teams. In this context, Thomas Richardson and his co-authors wrote: "Our study shows that performance in ant teams depends



largely on whether or not a key role is filled by an experienced individual, and suggests that in animal teams, not all roles are equally important” (Richardson et al, 2021).

With the progress of the human civilization, the process of distribution of resources also evolved. Leaders became the decision makers of these processes. These opened the doors for changes in leadership. Thus, man started forming small groups called tribes. There were leaders who used to give directions to these tribes. In today's world, tribal leadership is found only in isolated indigenous populations of remote areas.

The discovery of agriculture contributed heavily in the evolution of social structures and way of thinking of man. A time came in History, when man started to settle down in one place. With utter shock, for the first time man found that there was a surplus in resources. These surplus resources had to be distributed again. This gave rise to conflicts between the various societal groups. Thus, leaders were expected to protect their people from these threats. This demanded a formalization of the power centers. The first road for creation of kingdoms and chiefdoms was created (Van, 2008). After this, came the medieval times. In this period, the kings and rulers gave protection to their men. However, the kings and rulers demanded loyalty in return. Gradually, it paved the way for a period when leadership relied on brutality to ensure loyalty by their side. There were differences between leadership ideas in the West and the East. The Chinese Doctrine of the Mandate of Heaven says that subordinates had the right to overthrow rulers. Warlords tend to appear in the scene when a kingdom or country is failing. That is why; warlords can be seen in many failed nations of Africa and the Middle East region. The Roman civilization was at one point of time getting converted into an Empire from a Republic. That also gave way to changes in leadership as was perceived by Socrates and Aristotle.

The Industrial Revolution that commenced roughly about two hundred and fifty years ago, contributed towards changes in leadership. Large businesses started to get developed in this era. Thus, there was a need to differentiate between supervisors and laborers. So, it was during this phase that management came into existence which provided leadership to the big business units. The primary job of a management was to make employees as productive as possible. After the World War II, in the 1960s leadership became fully management oriented. During the 1980s, books were being written on leadership. In the 1990s, leadership became an academic discipline of study and research. It was this phase, when people started realizing that an organization needed leadership at all levels (Dichter, 1992). The twenty first century saw humility becoming a key element of leadership.

COVID pandemic since 2020 changed all paradigms of leadership. The destruction brought in by it (COVID pandemic) and the new order led to reshaping of systems, the emergence of new structures, economic successes or failures. All of these relate to the decisions taken by the leaders (Kurt & Erdogan, 2021).

McKinsey, the world's largest global management consultancy firm identified that building conviction, instilling confidence and developing skills had become the elements of leadership during the pandemic. At this point in time, it was important for leaders to become role models (Craven, 2020).

Leadership in a crisis involves contingency planning to enact an effective response, mitigate the amount of possible damage caused, and lay the groundwork for recovery (Kapucu and Van Wart, 2008). So, in the wake of COVID 19, there was a necessity for leaders to do things differently. They had to adapt quickly to changes in leadership (Uhl-Bien 2021). So, more than before, it was at this time that leadership became a more saleable commodity for education companies and institutes, the objective being improvements in leadership. In the Pandemic era, work became 'remote work'. Thus, management also became 'remote management'. This was the first phase in History when leaders had to be technically sound and have an access to internet in order to maintain the continuity of their practice as a leader. Usage of technology changed many dynamics of leadership. Leaders could address and communicate with uncountable numbers while practicing their leadership. Moreover, everything that they were saying and doing was getting documented for the first time. Technology has enabled leaders to stay at one place and address their followers. Thus, this has happened for the first time in History that leaders are addressing followers in different places on Earth, followers of different religions and ethnicity at one point in time. This had an influence in their selection of words. From this phase onwards, leaders could have only one choice in their hands. They became global. There was no room for being local or regional. Moreover, the



pandemic was an exceptional circumstance. Everything had to be done quickly. This was applied in leadership also. In this era, leaders had to do everything very fast. They had to play the role of fast decision makers. Amy Edmondson, Professor of Leadership and Management at Harvard Business School talked about steps that a leader can take to ensure a team's psychological safety: setting a stage and inviting engagement. Also, responding productively to a direct question is another way (Kosner, 2020).

DISCUSSION

The data on the changes in leadership during COVID highlighted the growing importance of leadership. It spoke about the changes in every aspect of leadership. A discussion on the data is presented below —

'Leaders' and 'leadership' are applicable beyond humanity also. They are an integral part of life in this planet. In this manuscript this word has been applied only in the case of humanity.

The data on the evolution of leadership establishes that leadership had always been going through changes. The period of COVID pandemic was not an exception.

The data that we get about leadership prior to the pandemic is a data of about 13,000 years. On the contrary, the data that we get about leadership and changes in it due to COVID is data of about four or five years only.

The pandemic has changed the world. So, leaders may be expected to take new decisions i.e. decisions which were not taken before.

After the commencement of the pandemic, leaders needed to be able to quickly gain an understanding of the situation and be able to anticipate and gauge risk, gather relevant information quickly, and be able to formulate an effective response (Boin et al., 2020). They need the capacity to take charge in these types of circumstances otherwise the situation can escalate, rendering it insurmountable.

These days, academic courses on leadership constitute an important portion of academics. So, we are living in an era when leaders are not only born, but they can actually be 'manufactured'. This is not something common in developing countries of Asia, Africa and Latin America.

When management became 'remote management' in this era, leaders had to gain technical soundness.

There has been tectonic shift in communication patterns of leaders. Previously, leaders could select words which would satisfy their followers and dissatisfy other groups. But COVID ensured that leaders could not select their words this way. This is because when they were addressing their followers, they were addressing them from around the world and also those who were not their followers. Moreover, communication getting documented ensured that leaders could not deny what they communicated.

Leadership has become more global. Thus, principles and fundamentals of leadership will not be different for different regions. There will be uniformity in all aspects of leadership.

Increase in the speed of taking decisions and implementing the same ensure that at times followers will lag behind. Followers may find it difficult to cope with the speed of the leaders.

CONCLUSIONS & RECOMMENDATIONS

After the data was interpreted, conclusions were reached and recommendations were framed on the basis of those conclusions. A discussion on these is as follows: —

The fact that leadership has always been going through evolution helps to reach the conclusion that changes in leadership due to the COVID pandemic should have been expected and accepted easily. Leadership was never static. But surprisingly this has not happened. So, there is scope of research as to why these changes were not anticipated.

Therefore, accepting and embracing changes should be considered as essential elements of leadership in this era. So, leaders should be educated to accept and embrace these changes. Such education may be expected to help them take new decisions.

The data of leadership prior to the COVID pandemic is data of about thirteen thousand years and the same during the pandemic is of four to five years only. So, it is impossible to compare data of thirteen thousand years and the same of four to five years. So, the basic principles of leadership should be based on the data of thirteen thousand years. The investigator recommends no alteration in those principles.



The world has changed. So, leaders are forced to take new decisions. This paves the way for basic or pure or fundamental researches as it is essential for mankind to increase the volume of knowledge in this topic and related topics.

Gauging, anticipating and formulating effective response has become an important part of the job profile of leaders. Thus, leadership has become more of a psychological work. Leaders are managing mostly invisible things that are related to human minds. They have to manage fear, anxiety and tension. Hence, leadership in these times requires a high emotional quotient. The emphasis during a crisis like this should be on making a connection rather than correction (Kaul et al., 2020).

The society in developing countries is mostly traditional and finds it difficult to accept changes. These are going to test the mental toughness of the emerging leaders.

Leaders gaining technical soundness added a new dimension in leadership. This has opened doors for business development of technical and IT training institutions around the world.

When there will be uniformity in leadership principles and fundamentals, we are going to experience the emergence of flow of information in different corners of the world about leadership in different corners of the world. This will ensure comparison of lives and all aspects involved. Thus, followers will start to demand more from leaders, particularly the non performing leaders. Man-management at micro level will have to be given importance by leaders. Moreover, this is the era when nothing will be able to save the leaders except performance and constant performance.

Changes in the communication pattern of the leaders indicated that leaders, therefore, need to seize the narrative at the outset, being transparent about current realities (what is happening), including what they do not know. Such communication needs to be clear and consistent but also adaptive (Kaul et al., 2020). Caringal-Go et al. (2021) found constant and open communications from their leaders helped alleviate the negative feelings brought about by the COVID-19 pandemic. Forster et al. (2020) stressed the importance of leaders ensuring transparency in their communication during the crisis. Deloitte's (2020) study on COVID-19 leadership also stressed the importance of communicating transparently and openly during a crisis.

When followers will find it difficult to cope with the speed of the leaders, there will be a requirement from their end to change the leaders. Leadership may get rejected easily in the upcoming periods. Moreover, leaders in this era need to have physical fitness in order to cope with that growing operational speed. Leaders will have to fit themselves in fitness programs like yoga programs, exercise programs and mental stress relief programs. In the near future, these can be expected to increase and get accepted at all levels of leadership. Pandemic leadership is not only about who is a good leader and who is not. Changes in the notion of gender (masculine versus feminine) and the labeling of crises are no longer analyzed straight forwardly. Whoever leads must be able to manage the people's public trust (Setyaningsih, 2023).

In order to respond to a rapidly evolving crisis such as COVID-19, leaders required adaptive leadership. This is because the crisis was characterized by uncertainty and turbulence (Balasubramanian & Fernandes, 2021).

LIMITATIONS

This study was based on secondary data. Secondary data has limitations. It is an already used data. Moreover, sometimes it may be opinionated. The articles considered in this study are not analyzed based on positions and job profiles. So, it is possible that some of these articles may be biased.

FOOTNOTES

The author declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.



REFERENCES

1. AlMazrouei H. (2023) The Effect of COVID 19 on managerial leadership style within Australian public sector organizations. *Journal of General Management*. SAGE. [PubMed Central]
2. Aslam, S., Akram, H., Saleem, A., and Zhang, B. (2021). Experiences of international medical students enrolled in Chinese medical institutions towards online teaching during the COVID-19 pandemic. *PeerJ*. 9, e12061. doi: 10.7717/peerj.12061
3. Balasubramanian, S., Shukla, V., Sethi, J. S., Islam, N., & Saloum, R. (2021). A readiness assessment framework for Blockchain adoption: A healthcare case study. *Technological Forecasting and Social Change*, 165, 120536. <https://doi.org/10.1016/j.techfore.2020.120536>
4. Blackwood, H. (2013). *Leadership and teams* (pp 123-124)
5. Boin, Arjen, Hart, Paul t', Mcconnell, Alan & Preston, Thomas (2010), *Leadership Style, Crisis Response and Blame Management: The Case of Hurricane Katrina*, *Public Administration*, Volume 88, Number 3, Pg. 706-723.
6. Caringal-Go, J. F., Teng-Calleja, M., Franco, E. P., Manaois, J. O., & Zantua, R. M. S. (2021). Crisis leadership from the perspective of employees during the COVID-19 pandemic. *Leadership & Organization Development Journal*, 42(4), 630–643. <https://doi.org/10.1108/LODJ-07-2020-0284>
7. Chatterjee SS, Malathesh Barikar C, Mukherjee A. (2020) *Impact of COVID-19 pandemic on pre-existing mental health problems*. *Asian Journal of Psychiatry* 51: 102071. DOI: 10.1016/j.ajp.2020.102071
8. Cherneski, J. (2020). Evidence-loving rock star chief medical officers: Female leadership amidst COVID-19 in Canada. *Gender, Work and Organization*, 27(5), 900–913. <https://doi.org/10.1111/gwao.12494>
9. Chuang, E., Cuartas, P. A., Powell, T., & Gong, M. N. (2020). “We’re Not Ready, But I Don’t Think You’re Ever Ready.” Clinician perspectives on implementation of crisis standards of care. *AJOB Empirical Bioethics*, 11(3), 148–159. <https://doi.org/10.1080/23294515.2020.1759731>
10. Craven, M., Fong, A., Lauricella, T., & Tan, T. (2020, July 28). The Long Haul: How leaders can shift mindsets and behaviors to reopen safely. McKinsey & Company. Retrieved April 18, 2023
11. Deloitte (2020b). Leadership in the times of COVID-19. <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/human-capital/in-hc-Leadership-in-the-times-of-Crisis-noexp.pdf>
12. Dichter, Steven F. “The Organization of the ’90s.” McKinsey & Company, 1 Mar. 1992, www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/the-organization-of-the-90s
13. Dirani, K. M., Abadi, M., Alizadeh, A., Barhate, B., Garza, R. C., Gunasekara, N., Ibrahim, G., & Majzun, Z. (2020). Leadership competencies and the essential role of human resource development in times of crisis: A response to COVID-19 pandemic. *Human Resource Development International*, 23(4), 380–394. <https://doi.org/10.1080/13678868.2020.1780078>
14. Egitim, S. (2022). *Challenges of adapting to organizational culture: Internationalization through inclusive leadership and mutuality*. *Social Sciences and Humanities Open*. 5(1). 100242
15. Escotet, M. Á. (2020). Pandemics, leadership, and social ethics. *Prospects*, 49(1–2), 73–76. <https://doi.org/10.1007/s11125-020-09472-3>
16. Fee A. (2017) *Expatriates’ safety and security during crisis*. In: McNulty Y, Selmer J. (eds) *Research Handbook of Expatriates*. Cheltenham and Northampton: Edward Elgar Publishing, 160–184. [Google Scholar]
17. Fink, S. L., Beak, J., & Taddeo, K. (1971). Organizational crisis and change. *The Journal of Applied Behavioral Science*, 7(1), 15–37. <https://doi.org/10.1177/002188637100700103>
18. Fitzgerald, D. A., & Wong, G. W. K. (2020). COVID-19: A tale of two pandemics across the Asia Pacific region. *Paediatric Respiratory Reviews*, 35(January), 75–80. <https://doi.org/10.1016/j.prrv.2020.06.018>



19. Forster, B. B., Patlas, M. N., & Lexa, F. J. (2020). Crisis Leadership During and Following COVID-19. *Canadian Association of Radiologists' Journal*, 71(4), 421–422. <https://doi.org/10.1177/0846537120926752>
20. Gregston, Luca Patrick Thierry, "The Evolution of Leadership During the COVID-19 Pandemic: An Analysis of the Research" (2023). University Honors Theses. Paper 1362. <https://doi.org/10.15760/honors.1391>
21. Grint, K. (2020). Leadership, management and command in the time of the Coronavirus. *Leadership*, 16(3), 314–319. <https://doi.org/10.1177/1742715020922445>
22. Hatcher, W. (2020). A failure of political communication not a failure of bureaucracy: The danger of presidential misinformation during the COVID-19 pandemic. *American Review of Public Administration*, 50(6–7), 614–620. <https://doi.org/10.1177/0275074020941734>
23. Henrickson, M. (2020). Kiwis and COVID-19: The Aotearoa New Zealand response to the global pandemic. *The International Journal of Community and Social Development*, 2(2), 121–133. <https://doi.org/10.1177/2516602620932558>
24. Hinojosa, A. S., Shaine, M. J. D., and McCauley, K. D. (2020). A strange situation indeed: Fostering leader-follower attachment security during unprecedented crisis. *Manag. Dec.* 58, 2099–2115. doi: 10.1108/MD-08-2020-1142
25. Hoch JE, Dulebohn JH. (2017) *Team personality composition, emergent leadership and shared leadership in virtual teams: a theoretical framework. Human Resource Management Review* 27(4): 678–693. [Google Scholar]
26. Isautier JMJ, Copp T, Ayre J, et al. (2020) *Lessons from the COVID-19 pandemic: people's experiences and satisfaction with telehealth during the COVID-19 pandemic in Australia: cross-sectional survey study. Journal of Medical Internet Research* 22: e24531. DOI: 10.1101/2020.09.10.20192336.
27. Jamieson, T. (2020). "Go Hard, Go Early": Preliminary lessons from New Zealand's response to COVID-19. *American Review of Public Administration*, 50(6–7), 598–605. <https://doi.org/10.1177/0275074020941721>
28. Kapucu, N., & Van Wart, M. (2008). Making matters worse: An anatomy of leadership failures in managing catastrophic events. *Administration & Society*, 40(7), 711–740. <https://doi.org/10.1177/0095399708323143>
29. Kaul, V., Shah, V. H., & El-Serag, H. (2020). Leadership during crisis: Lessons and Applications from the COVID-19 pandemic. *Gastroenterology*, 159(3), 809–812. <https://doi.org/10.1053/j.gastro.2020.04.076>
30. Kihara LN, Mugambi H. (2018) *Effect of stress management strategies on employees' performance in the public service. The Strategic Journal of Business and Change Management* 5(2): 2383–2405. [Google Scholar]
31. Kleinhuber, A., & Hermann, A. (2020). On the meaning of meaning as shared meaning—leadership development in turbulent times. *Gruppe. Interaktion. Organisation. Zeitschrift Fur Angewandte Organisationspsychologie*. <https://doi.org/10.1007/s11612-020-00540-y>
32. Kosner, Anthony Wing. "Amy Edmondson on the Power of Psychological Safety in Distributed Work." RSS, blog.dropbox.com/topics/work-culture/amy-edmondson-on-the-power-of-psychological-safety-in-distribute. Accessed 14 May 2025
33. Kurt, Yeşim; Erdogan, Dilek. Leadership in the Post-COVID-19 Era: New Leaders of the New Normal. In: *Global Perspectives on Change Management and Leadership in the Post-COVID-19 Era*. IGI Global, 2021, Pg. 199-217
34. Lee, D. M. M. (2020). Covid-19: Agnotology, inequality, and leadership. *Human Resource Development International*, 23(4), 333–346. <https://doi.org/10.1080/13678868.2020.1779544>
35. Lee, G. K., Lampel, J., & Shapira, Z. (2020). After the storm has passed: Translating crisis experience into useful knowledge. *Organization Science*, 31(4), 1037–1051. <https://doi.org/10.1287/orsc.2020.1366>
36. Maak, T., Pless, N. M. & Wohgezogen, F. (2021). The faultlines of leadership: Lessons from the global COVID-19 crisis. *Journal of Change Management*. 21(1)66-86



37. Parveen, K., Tran, P. Q. B., Alghamdi, A. A., Namaziandost, E., Aslam, S., and Xiaowei, T. (2022a). Identifying the Leadership Challenges of K-12 Public Schools During COVID-19 disruption: a systematic literature review. *Front. Psychol.* 13, 875646. doi: 10.3389/fpsyg.2022.875646
38. Richardson, Thomas O et al. "Leadership - not followership - determines performance in ant teams." *Communications biology* vol. 4,1 535. 6 May. 2021, doi:10.1038/s42003-021-02048-7
39. Setyaningsih, T., Bastian, I., Arifa, C. et al. Pandemic Leadership: Is It Just a Matter of Good and Bad?. *Public Organiz Rev* 23, 605–621 (2023). <https://doi.org/10.1007/s11115-023-00712-6>
40. Shakespeare-Finch J, Bowen-Salter H, Cashin M, et al. (2020) COVID-19: an Australian perspective. *Journal of Loss and Trauma* 25(8): 662–672. DOI: 10.1080/15325024.2020.1780748
41. Singh, M.K. & Kumar, V. (2020), Impact of COVID 19 pandemic on working Culture: An exploratory research among information technology (IT) professionals in Bengaluru, Karnataka, India. *Journal of Xi'an University of Architecture and Technology*, 12(5) 3176-3184
42. Siuda-Ambroziak, R., & Bahia, J. (2020). Religious leaders in politics: Rio de Janeiro under the mayor-bishop in the times of the pandemic. *International Journal of Latin American Religions*. <https://doi.org/10.1007/s41603-020-00123-1>
43. Spector, B. (2020). Even in a global pandemic, there's no such thing as a crisis. *Leadership*, 16(3), 303–313. <https://doi.org/10.1177/1742715020927111>
44. Soete, L. (2021). Learning from the COVID-19 pandemic: How to better prepare for the next global crisis. *Frontiers Policy Lab*, 2021
45. Soule, C. (2018, October 26). There's a hierarchy in the cattle world. *Concord Monitor*. Retrieved March 10, 2025, from <https://www.concordmonitor.com/Leader-of-the-pack-21081175>
46. Steel Z. (2020) *When the smoke clears: supporting communities after a disaster*. *Medicine Today* 21(3): 10–19. [\[Google Scholar\]](#)
47. Talu & Nazarov (2020). Challenges and competencies of leadership in covid-19 pandemic. *Advances in Social Science, Education and Humanities Research*, 486 (November), 518-524
48. Thomson, K. (2020). By the light of the corona (virus): revealing hegemonic masculinity and the double bind for men in responding to crises. *Health Sociology Review*, 0(0), 1–9. <https://doi.org/10.1080/14461242.2020.1784773>
49. Vera, D., & Crossan, M. (2004). Strategic leadership and organizational learning. *Academy of Management Review*, 29(2), 222–240. <https://doi.org/10.2307/20159030>
50. Vroman, S. R., & Danko, T. (2020). Against what model? Evaluating women as leaders in the pandemic era. *Gender, Work and Organization*, 27(5), 860–867. <https://doi.org/10.1111/gwao.12488>
51. Uhl-Bien, Mary. "Complexity and COVID-19: Leadership and Followership in a Complex World." *Journal of Management Studies*, vol. 58, no. 5, 2021, pp. 1400–04, doi:10.1111/joms.12696.
52. Wardman, J.K. (2020), Recalibrating pandemic risk leadership Thirteen crisis ready strategies for COVID 19, *Journal of Risk Research*, 23(7-8), 1092-1120.
53. Wilson, S. (2020). Pandemic leadership: Lessons from New Zealand's approach to COVID-19. *Leadership*, 16(3), 279–293. <https://doi.org/10.1177/1742715020929151>
54. Zhang, M., Jansen, B.J. & Chowdhury, A. (2011). Business engagement on Twitter: A path analysis, *Electron Markets*, 21, 161-175.