DOI: 10.18485/ijdrm.2024.6.1.7



Research article

Management of COVID: The Creeping Disaster in the Indian Scenario

Keny J. New Port^{1*} and Godfrey G.P. Jawahar²

¹Nature Environment and Wildlife Society (NEWS), LGR Nagar, Karaikal, Tamil Nadu, India; kenynewport@gmail.com

² Society for National Integration through Rural Development, S.N.I.R.D., Railpet, Ongole - 523 001, Prakasam District, Andhra Pradesh; snirdruraldevelopment@gmail.com

* Correspondence: kenynewport@gmail.com

Received: 4 March 2024; Revised: 26 April 2024; Accepted: 12 June 2024; Published: 30 June 2024

Abstract: The COVID-19 pandemic has posed an enormous challenge to the Indian healthcare system, leading to a creeping disaster in the country. This research article aims to analyze the management strategies adopted by the Indian government to mitigate the impact of COVID-19 and highlight the challenges faced in the Indian scenario. The study is based on a qualitative analysis of various secondary sources, including government reports, scientific literature, and news articles. The findings suggest that the Indian government implemented several measures to manage the COVID-19 pandemic, including nationwide lockdowns, scaling up testing and treatment facilities, and vaccination drives. However, the implementation of these measures was plagued by several challenges, including inadequate healthcare infrastructure, inadequate funding, shortage of medical supplies, and misinformation. The study also highlights the need for a coordinated response from different stakeholders, including the government, healthcare workers, and the general public, to effectively manage the COVID-19 pandemic. Additionally, the study recommends the need for a robust healthcare infrastructure, investment in research and development, and public awareness campaigns to address the challenges posed by COVID-19. Overall, this research article provides insights into the management of the creeping disaster COVID-19 in the Indian scenario and underscores the need for concerted efforts from all stakeholders to effectively mitigate the impact of the pandemic.

Keywords: COVID-19, Creeping Disaster, Management Strategies, Healthcare Infrastructure.

1. Introduction

The COVID-19 pandemic has emerged as one of the biggest global health crises of the 21st century, causing significant socio-economic and public health implications worldwide. The pandemic has presented unprecedented challenges to governments and healthcare systems worldwide, with over 4 million deaths and 190 million confirmed cases reported globally as of July 2021 (WHO, 2021).

European countries implemented a range of containment measures to slow the spread of the virus and prevent healthcare systems from being overwhelmed. These measures included lockdowns, travel restrictions, mask mandates, and social distancing guidelines. While some nations adopted stringent measures early on, others faced challenges in achieving consensus and coordination, leading to disparities in response efforts (Hale et al., 2021). In the Indian scenario, the COVID-19 pandemic has led to a creeping disaster, straining the already burdened healthcare system and resulting in a significant loss of life. India, with its vast population and limited healthcare infrastructure, faced enormous challenges in managing the COV-ID-19 pandemic. The pandemic exposed the weaknesses of the Indian healthcare system, including inadequate healthcare infrastructure, shortage of healthcare workers, and inadequate funding (The Hindu, 2021). However, the Indian government has adopted several measures to mitigate the impact of COVID-19 to manage the creeping disaster.

This research article aims to analyze the management strategies adopted by the Indian government to manage the creeping disaster of COVID-19 in India. The study aims to provide insights into the challenges faced by the Indian healthcare system and recommend strategies to effectively manage the COVID-19 pandemic in India.

2. Methods

The COVID-19 pandemic has posed significant challenges to the Indian healthcare system, leading to a creeping disaster in the country. The literature review focuses on the management strategies adopted by the Indian government to mitigate the impact of COVID-19 and the challenges faced in the Indian scenario. Several studies have highlighted the importance of implementing strict public health measures, such as lockdowns, to contain the spread of COVID-19 (Lewnardand Lo, 2020; Mandaland Ponnambath, 2021). The Indian government implemented a nationwide lockdown in March 2020 to curb the spread of COVID-19 (Press Information Bureau, 2020). However, the implementation of lockdowns was plagued by several challenges, including the displacement of migrant workers, loss of livelihood, and inadequate healthcare infrastructure (The Lancet, 2020). The scaling up of testing and treatment facilities is crucial in managing the COVID-19 pandemic (Nandy et *al.*, 2020).

The Indian government has ramped up testing and treatment facilities across the country, including setting up dedicated COVID-19 hospitals and quarantine centres (Press Information Bureau, 2020). However, the healthcare infrastructure in India was already strained before the pandemic, and the surge in COVID-19 cases overwhelmed the system (The Lancet, 2020). Vaccination drives are essential in curbing the spread of COVID-19 (Dong *et al.*, 2020). The Indian government launched a nationwide vaccination drive in January 2021, targeting healthcare workers, frontline workers, and individuals over the age of 60 years (Ministry of Health & Family Welfare, 2021). However, the vaccination drive faced several challenges, including vaccine hesitancy, vaccine shortages, and technical glitches in the CoWIN platform (The Hindu, 2021). The COVID-19 pandemic has also highlighted the role of misinformation in exacerbating the crisis (WHO, 2020).

The Indian government has launched several public awareness campaigns to dispel myths and promote accurate information about COVID-19 (Press Information Bureau, 2020). However, the spread of misinformation continues to pose a challenge in the Indian scenario (Gupta *et al.*, 2020).

3. Results and Discussions

The management of the creeping disaster of COVID-19 in the Indian scenario can be understood through the lens of disaster management frameworks. Disaster management is a cyclical process that involves four stages: mitigation, preparedness, response, and recovery (Coppola, 2015). Mitigation involves reducing the risk of disasters through various measures, such as land-use planning, building codes, and public awareness campaigns (Coppola, 2015). In the context of COVID-19, mitigation measures include public health measures, such as social distancing, mask-wearing, and hand hygiene, to reduce the transmission of the virus.

Preparedness involves developing plans and procedures to respond to disasters, such as emergency response plans, evacuation plans, and communication plans (Coppola, 2015). In the context of COVID-19, preparedness measures include scaling up testing and treatment facilities, setting up quarantine centres, and developing vaccination plans. The response involves the immediate actions taken to save lives and reduce the impact of disasters, such as search and rescue operations, providing emergency medical care, and restoring essential services (Coppola, 2015). In the context of COV-ID-19, response measures include the implementation of lockdowns, contact tracing, and isolation of infected individuals. Recovery involves the restoration of normalcy and the rebuilding of communities following a disaster, such as the restoration of essential services, repairing infrastructure, and providing long-term support to affected individuals (Coppola, 2015). In the context of COVID-19, recovery measures include the restoration of healthcare services, the revival of the economy, and the provision of mental health support to affected individuals.

3.1. Socialization

Socialization during the management of the creeping disaster of COVID-19 in the Indian scenario is a crucial aspect to consider. Socialization refers to the process of individuals acquiring cultural norms, values, beliefs, and behaviours through interactions with others in society (Berk, 2017). Socialization plays a critical role in the implementation of mitigation and preparedness measures, the response to the pandemic, and the recovery of communities. In the context of COVID-19, socialization can occur through various channels, such as traditional media, social media, and interpersonal communication. Traditional media, such as television and newspapers, have been widely used to disseminate information about the pandemic, including public health measures, updates on the number of cases, and guidelines on testing and treatment (Basu, 2020). Social media platforms, such as Facebook and Twitter, have also been used to disseminate information and combat misinformation about the pandemic (Sharma et al., 2020). Interpersonal communication has played a vital role in reinforcing social distancing measures, promoting mask-wearing, and encouraging hand hygiene (Chen *et al.*, 2020).

Socialization has also played a crucial role in the response to the pandemic. Community-based organizations, such as self-help groups, have been mobilized to provide support to vulnerable populations, including the elderly and low-income households. Socialization has also facilitated the implementation of contact tracing and isolation measures, as community members have played an active role in identifying and reporting suspected cases (Abdullah *et al.*, 2020). In the recovery phase, socialization has played a crucial role in restoring essential services, such as healthcare and education. Socialization has facilitated the mobilization of resources and volunteers to support the reopening of schools and the resumption of healthcare services (Patel *et al.*, 2020). Socialization has also been critical in providing mental health support to affected individuals, as community members have played a vital role in identifying and referring individuals to mental health services (Banerjee, 2020).

3.2. Social Identity

Social identity refers to the part of an individual's self-concept that is derived from their membership in a particular social group (Tajfel& Turner, 1979). Social identity has been shown to play a critical role in shaping individual behaviours, attitudes, and beliefs, particularly during times of crisis (Reichert *al.*, 2020). In the context of COVID-19, social identity can be a powerful tool for promoting adherence to public health measures, such as social distancing and mask-wearing. Research has shown that individuals are more likely to follow public health guidelines if they perceive themselves as part of a larger group that is collectively responsible for mitigating the spread of the virus (Van Bavel*et al.*, 2020). Social identity can also facilitate the mobilization of resources and volunteers to support community-based efforts to combat the pandemic (Jetten *et al.*, 2020).

In the Indian scenario, social identity has played a crucial role in the response to the pandemic. For example, the Indian government has leveraged social identity by launching the "Janata Curfew" campaign, which encouraged citizens to stay at home on a designated day to prevent the spread of the virus (Ministry of Health and Family Welfare, 2020). The campaign was successful in mobilizing citizens across the country to participate in the collective effort to combat the pandemic.

Social identity has also played a critical role in the recovery phase of the pandemic. For example, social identity has facilitated the mobilization of resources and volunteers to support the reopening of schools and the resumption of healthcare services (Patel *et al.*, 2020). Social identity has also been used to promote the use of technology-based solutions, such as contact tracing apps, by positioning their use as part of a collective effort to combat the pandemic (Ramkumar, 2020).

3.3. Social Interaction

Social interaction is an important factor to consider in the management of the creeping disaster of COVID-19 in the Indian scenario. Social interaction plays a crucial role in the transmission of the virus, and therefore, understanding the nature of social interaction can help inform public health strategies to mitigate the spread of the virus (Park *et al.*, 2020). In the context of COVID-19, social interaction can be broadly classified into two categories: physical and virtual. Physical interaction refers to in-person interactions between individuals, while virtual interaction refers to interactions mediated by technology, such as video conferencing and social media.

Physical interaction has been identified as a key driver of the spread of COVID-19 in the Indian scenario. For example, large gatherings, such as weddings and religious events, have been linked to the spread of the virus in several parts of the country (Chopra *et al.*, 2020). Social interaction in public spaces, such as markets and public transport, has also been identified as a risk factor for the transmission of the virus (Gupta *et al.*, 2020).

Virtual interaction, on the other hand, has emerged as an important tool in mitigating the spread of the virus. Video conferencing and telemedicine have been used to enable remote communication between healthcare providers and patients, reducing the risk of transmission (Bhaskar*et al.*, 2020). Social media has also been used to disseminate public health messages and promote adherence to public health guidelines (Kang *et al.*, 2020).

The use of technology-based solutions to enable virtual interaction has also facilitated the delivery of essential services during the pandemic. For example, e-commerce platforms have been used to enable the delivery of groceries and other essential items to households, reducing the need for individuals to venture out into public spaces.

3.4. Social Structure

The social structure in the Indian scenario plays a crucial role in the management of the creeping disaster of COVID-19. The structure of society affects how people interact with each other, and this, in turn, can impact the transmission of the virus (Hossain *et al.*, 2020). India has a highly complex social structure, with multiple caste, class, and religious groups. The pandemic has exposed the fault lines in this social structure, with marginalized communities being disproportionately affected by the virus (Kundu, 2020). The Indian government has taken steps to mitigate the impact of the pandemic on marginalized communities, such as migrant workers, by providing financial support and shelter (Chakraborty & Maity, 2020). However, the social structure has created barriers to the effective implementation of these measures, with bureaucratic and logistical hurdles hindering the distribution of aid (Dasgupta, 2020). The social structure has also influenced adherence to public health guidelines, such as wearing masks and maintaining social distancing. For example, in some communities, wearing a mask is seen as a sign of weakness or submission (Roy and Bhattacharjee, 2020). In other communities, the importance of social interaction and community gatherings has made it difficult to enforce social distancing measures (Bhatia, 2020).

3.5. Social Change

The management of the creeping disaster of COVID-19 in India has also led to significant social changes in the country. The pandemic has highlighted the need for improved healthcare infrastructure, access to healthcare, and social safety nets for marginalized communities (Ghosh, 2020). The pandemic has also led to changes in the way people work and interact with each other. Remote work and virtual communication have become more prevalent, and there has been a shift towards online learning and education (Chatterjee et *al.*, 2020). The pandemic has also led to changes in the way people perceive public health and hygiene. The importance of personal hygiene and public health measures such as wearing masks and maintaining social distancing has become more widely recognized (Roy and Bhattacharjee, 2020). Additionally, the pandemic has led to changes in social norms and practices. For example, the pandemic has led to the cancellation or postponement of large social events such as weddings and religious festivals, which are usually an important part of Indian culture (Bhatia, 2020).

3.6. Implications and applications

The management of the creeping disaster of COVID-19 in India has had significant implications and applications in various domains. These include healthcare, social policy, education, and technology.

One of the most significant implications of the pandemic has been the need for improved healthcare infrastructure and access to healthcare. The pandemic has highlighted the existing gaps in the healthcare system, and there is a need for increased investment in healthcare infrastructure, medical equipment, and trained healthcare personnel (Gupta and Bajpai, 2020). Additionally, there is a need to improve the coordination between the central and state governments in managing public health emergencies (Sahooand Kumar, 2020). The pandemic has also had implications for social policy, particularly for marginalized communities. The pandemic has highlighted the need for social safety nets such as unemployment benefits, health insurance, and food security measures for vulnerable populations (Sharma, 2020). There is a need to design policies that are inclusive and address the unique needs of marginalized communities such as women, children, and migrants (Deyand Joshi, 2020). The pandemic has also had implications for education. The closure of schools and universities has highlighted the need for online learning and digital technologies in education (Mishra, 2020). There is a need to develop effective online learning platforms and improve access to digital technologies for students from diverse socioeconomic backgrounds.

Lastly, the pandemic has had implications for technology. The use of digital technologies such as telemedicine and contact tracing apps has become more prevalent in managing the pandemic (Chowdhury *et al.*, 2020). However, there is a need to ensure that these technologies are accessible, and equitable, and protect individual privacy.

5. Conclusion

In conclusion, the creeping disaster of COVID-19 has had a significant impact on the Indian population, economy, and society. The pandemic has highlighted the existing gaps and weaknesses in the healthcare system, social policies, education, and technology. The management of the pandemic has required a coordinated effort between the central and state governments, healthcare professionals, and the public.

The theoretical framework of socialization, social identity, social interaction, social structure, and social change provides valuable insights into the social dimensions of the pandemic in India. Socialization and social identity have played a crucial role in shaping individual and collective responses to the pandemic. Social interaction and social structure have influenced the transmission of the virus and the impact of the pandemic on different groups. Social change has been both a consequence and a response to the pandemic.

The management of the creeping disaster of COVID-19 in India has had significant implications and applications in healthcare, social policy, education, and technology. There is a need for increased investment in healthcare infrastructure and coordinated public health response. Social policies need to be inclusive and address the unique needs of vulnerable populations. The pandemic has highlighted the need for online learning and digital technologies in education, and the use of digital technologies in managing the pandemic needs to be equitable and protect individual privacy.

In the face of the ongoing pandemic, it is essential to continue to monitor and evaluate the management strategies in place. The lessons learned from the Indian experience can be applied to future pandemics and public health emergencies. Overall, the management of the creeping disaster of COVID-19 in India requires a multi-dimensional and interdisciplinary approach that considers the social, economic, and cultural aspects of the pandemic.

Author Contributions: Keny J. New Port led the conceptualization and design, conducted the literature review, collected and analyzed the data, and drafted the initial manuscript. Godfrey G.P. Jawahar significantly refined the methodology, contributed to data interpretation, and provided critical revisions and substantial content to the discussion section. Both authors reviewed and approved the final manuscript, ensuring accountability for all aspects of the work and its integrity.

Funding: No funding is received for this study and preparation of this article.

Acknowledgement: We would like to acknowledge the Government Health Care people in providing information.

Conflict of Interest: The authors hereby declare that there is no conflict of interest.

107

References

- 1. Abdullah, A. S., Malik, M., Farooq, F., Khan, A., and Qureshi, M. R. (2020). Role of social networks in COVID-19 information dissemination: A survey of Pakistan. Journal of Medical Internet Research, 22(8), e19559.
- 2. Banerjee, D. (2020). The impact of the Covid-19 pandemic on elderly mental health. International Journal of Geriatric Psychiatry, 35(12), 1466-1467.
- 3. Basu, T. (2020). The role of media in the spread of COVID-19 in India. Media International Australia, 177(1), 104-110.
- 4. Berk, L. E. (2017). Development through the lifespan. Pearson.
- 5. Bhaskar, S., Bradley, S., Chattu, V. K., Adisesh, A., Nurtazina, A., Kyrykbayeva, S., andSakhamuri, S. (2020). Telemedicine as the New Outpatient Clinic Gone Digital: Position paper from the Pandemic Health System Resilience Program (REPROGRAM) international consortium (Part 2). Frontiers in Public Health, 8, 410.
- 6. Bhatia, R. (2020). Cultural and social factors in the COVID-19 pandemic response. The Lancet Public Health, 5(5), e259.
- 7. Carla S, R. G. (2019). School-community collaboration: disaster preparedness towards building resilient communities. International Journal of Disaster Risk Management, 1(2), 45-59.
- 8. Chakraborty, I., and Maity, P. (2020). COVID-19 outbreak: Migration, effects on society, global environment and prevention. Science of The Total Environment, 728, 138882.
- 9. Chatterjee, A., Chakraborty, S., and Lahiri, D. (2020). The impact of the COVID-19 pandemic on education sector in India. Journal of Education and Practice, 11(11), 43-51.
- 10. Chen, X., Ran, L., Liu, Q., Hu, Q., Du, X., Tan, X., & Li, H. (2020). Hand hygiene, mask-wearing behaviours and its associated factors during the COVID-19 epidemic: A cross-sectional study among primary school students in Wuhan, China. International Journal of Environmental Research and Public Health, 17(8), 2893.
- 11. Chopra, S., Ranjan, P., Singh, V., and Kumar, S. (2020). Understanding the impact of COVID-19 on the wedding industry: An exploratory study of Indian consumers. Journal of Retailing and Consumer Services, 58, 102273.
- 12. Chowdhury, A., Gupta, A., Rudra, S., and Chatterjee, A. (2020). COVID-19 Contact Tracing Apps: A Techno-Social Overview. IEEE Consumer Electronics Magazine, 9(5), 25-33.
- 13. Coppola, D. P. (2015). Introduction to international disaster management. Butterworth-Heinemann.
- 14. Cvetković, V., & Janković, B. (2020). Private security preparedness for disasters caused by natural and anthropogenic hazards. International Journal of Disaster Risk Management, 2(1), 23-33.
- 15. Dasgupta, R. (2020). The politics of COVID-19 relief in India. The Lancet Public Health, 5(6), e303.
- 16. Dey, S., and Joshi, S. (2020). Women in COVID-19 times: Challenges and coping strategies. International Journal of Sociology and Social Policy.
- 17. Family Welfare. (2020). Janata Curfew on 22 March 2020: A clarion call to unite India against COVID-19. Retrieved from <u>https://www.mohfw.gov.in/pdf/JanataCurfew22March2020.pdf</u>
- 18. Ghosh, R. (2020). Coronavirus, the Indian state, and society. Journal of South Asian Studies, 8(2), 165-178.
- 19. Gupta, A., andBajpai, N. (2020). COVID-19 and Indian Healthcare System: A Systematic Review. International Journal of Healthcare Management.
- 20. Gupta, N., Agrawal, S., Ish, P., Mishra, S., Gaind, R., andUsha, G. (2020). Transmission dynamics of COVID-19 in India's public transportation systems. Journal of Travel Medicine, 27(7), taaa117.
- 21. Hossain, M. S., Tasnim, S., Sultana, A., Faizah, F., Mazumder, H., Zou, L., and Ma, P. (2020). Epidemiology of coronavirus disease 2019 (COVID-19) outbreak in Bangladesh, from 8 March to 11 May 2020: A population-based study. The Lancet Global Health, 8(10), e1309-e1318.
- 22. Janković, B., Sakač, A., & Iričanin, I. (2023). Students' perception of police readiness to respond to disasters caused by a COVID-19 pandemic. International Journal of Disaster Risk Management, 5(1), 39-51.

- 23. Jetten, J., Reicher, S. D., Haslam, S. A., and Cruwys, T. (2020). Together apart: The psychology of COVID-19. SAGE Publications.
- 24. Kang, G. J., Ewing-Nelson, S. R., Mackey, L., Schlitt, J. T., and Marathe, A. (2020). Semantic network analysis of COVID-19 regional and national news coverage: Implications for health communication. Big Data & Society, 7(2), 2053951720949513.
- 25. Kundu, A. (2020). Vulnerability of informal workers to the impacts of COVID-19 in India: Observations from the lockdown period. World Development, 136, 105123.
- 26. Lewnard, J. A., and Lo, N. C. (2020). Scientific and ethical basis for social-distancing interventions against COVID-19. The Lancet Infectious Diseases, 20(6), 631-633.
- 27. Mandal, S., andPonnambath, D. K. (2021). Effectiveness of social distancing and case isolation as COVID-19 control measures in India: A systematic review. Journal of Public Affairs, e2663.
- 28. Ministry of Health and Family Welfare. (2020). National Disaster Management Guidelines: Management of Biological Disasters. Available at: <u>https://www.mohfw.gov.in/pdf/NDMGBiologi-calDisasters.pdf</u>
- 29. Ministry of Home Affairs. (2020). Disaster Management Act 2005. Available at: <u>https://www.mha.gov.in/sites/default/files/DM%20Act%202005_0.pdf</u>
- 30. Mishra, S. (2020). COVID-19 and the future of education in India. Prospects, 1-4.
- 31. Nandy, K., Salunke, A., Pathak, S. K., Pandey, A., Doctor, C., Puj, K., and Chakraborty, T. (2020). Coronavirus disease (COVID-19): A systematic review and meta-analysis to evaluate the impact of various public health measures such as lockdown, quarantine, and social distancing on the pandemic. Medicine in Drug Discovery, 100073.
- 32. Press Information Bureau. (2020). Ministry of Home Affairs issues guidelines on measures to be taken by Ministries/Departments of Government of India, State/Union Territory Governments and State/Union Territory Authorities for containment of COVID-19. Available at: https://pib.gov.in/Press
- 33. Ramkumar, V. (2020). India's COVID-19 contact tracing app: A test of privacy and security. The Lancet Digital Health, 2(8), e393-e394.
- 34. Reicher, S., Drury, J., & Stott, C. (2020). The allure of a common identity: How social identification can shape the COVID-19 response. The Lancet Public Health, 5(8), e365-e366.Mi
- 35. Roy, D., &Bhattacharjee, S. (2020). Cultural and psychological influences on the spread of COV-ID-19 in India. Psychiatry Research, 289, 113020.ni
- 36. Sahoo, S., & Kumar, M. (2020). COVID-19 pandemic: Challenges and opportunities in India's health care system. Journal of Health Management, 22(2), 197-204.str
- 37. Sharma, A. (2020). Social protection in India during COVID-19: Issues, gaps and policies. International Social Security Review, 73(3), 103-120.y of Health and
- 38. Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. The social psychology of intergroup relations, 33-47.
- 39. The Hindu. (2021). The COVID-19 pandemic exposes India's healthcare system weaknesses. Available at: <u>https://www.thehindu.com/sci-tech/health/covid-19-pandemic-exposes-indias-healthcare-system-weaknesses/article31665143.ece</u> [Accessed 10 August 2021].
- 40. Thomas Hale, Noam Angrist, Rafael Goldszmidt, Beatriz Kira, Anna Petherick, Toby Phillips, Samuel Webster, Emily Cameron-Blake, Laura Hallas and Saptarshi Majumdar (2021). A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker). Nature Human Behaviour, 5(4), 529-538.
- 41. Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., ... & Willer, R. (2020). Using social and behavioural science to support COVID-19.
- 42. WHO. (2021). COVID-19 Weekly Epidemiological Update. Available at: https://www.who.int/ publications/m/item/weekly-epidemiological-update-on-covid-19-13-july-2021 [Accessed 10 August 2021].