Chapter 12
Long-Term Pandemic Management and the Need to Invest in Digital Transformation:
A Resilience Theory Perspective

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ABSTRACT

Assessing the preparedness of Ghana's health sector is a crucial task that requires a comprehensive and multi-faceted approach. Ghana's health sector faces many challenges, including limited resources, inadequate infrastructure, and workforce shortages, which can impede the delivery of quality healthcare services to the population. Thus, building a strong health resilience system is essential to cope with catastrophic events, and the capacity to prepare and effectively respond to pandemics. The COVID-19 pandemic has highlighted the critical role of digital technologies in managing public health emergencies. In the context of long-term pandemic management, digital transformation can provide numerous benefits, such as improving the speed and efficiency of response, enhancing communication and collaboration, and enabling remote access to essential services. Empirically, our study found that individual and systemic resilience are significant predictors of long-term pandemic management. Conversely, community resilience in times of crisis is not a significant predictor.

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INTRODUCTION

The COVID-19 pandemic has significantly impacted global health, presenting unprecedented challenges to healthcare systems worldwide. As the pandemic evolves, there is an increasing emphasis on developing long-term pandemic management strategies. These strategies are crucial for effectively addressing the ongoing health and social consequences of the pandemic. In Ghana, like in many countries, managing long-term COVID-19 patients has become a critical aspect of the pandemic response. Several studies have highlighted various challenges and proposed approaches to address these issues. For instance, Comber (2024) has proposed a framework for primary care physicians to manage COVID-19 patients over the long term. They stress the importance of continuous monitoring and follow-up care for patients who have recovered from COVID-19. This approach is essential to manage potential post-COVID complications and ensure optimal recovery. Persistent symptoms and complications post-COVID, often referred to as "long COVID" or "post-acute COVID-19 syndrome," can include a range of symptoms like fatigue, breathlessness, and cognitive impairment, necessitating ongoing medical support and care.

Montani et al. (2021) underscores the importance of a multidisciplinary approach in managing long-term COVID-19 patients, especially those with chronic conditions or those requiring rehabilitation. A multidisciplinary team, including primary care physicians, specialists, nurses, physical therapists, and mental health professionals, can provide comprehensive care tailored to the diverse needs of long-term COVID-19 patients. This approach integrates medical, physical, and psychological support, addressing the multifaceted impact of COVID-19 on patients' health. Furthermore, the application of technology in managing long-term COVID-19 patients is increasingly being recognized. Telemedicine (Chauhan et al., 2024), digital health tools (Arif et al., 2024; Miranda, 2024; Tomé et al., 2024), and remote monitoring technologies (Tariq, 2024a) can play a vital role in providing continuous care, especially in settings where healthcare resources are limited or where patients may face challenges in accessing in-person healthcare services.

Significant research gaps persist in understanding the best practices for long-term pandemic management, especially in the context of countries like Ghana. Key areas that require further exploration include the specific healthcare needs of long-term COVID-19 patients, assessing the effectiveness of various management strategies, and determining the impact of these strategies on patient outcomes. Moreover, there is a crucial need for research focusing on the socio-economic impacts of long-term COVID-19 and evaluating the effectiveness of public health policies in mitigating these impacts. Current studies have concentrated on clinical management strategies for long-term COVID-19 patients, yet there is an urgent need to expand research into the realms of digital transformation, psychosocial effects, and economic consequences of the pandemic. Di Toro et al. (2021) emphasize the importance of research into the economic burden of long-term COVID-19 care and the potential role of digital health technologies in effective pandemic management. Alawi (2021) has also highlighted the necessity for more research on the efficacy of pandemic management strategies in long-term care settings.

Another critical research gap is the lack of understanding regarding the long-term impacts of the pandemic on vulnerable populations (Fung et al., 2022; Tan et al., 2023), as well as identifying which technologies could support future pandemics (Weaver et al., 2022). The COVID-19 pandemic has disproportionately impacted marginalized communities, intensifying existing health disparities. In-depth research is needed to unravel the long-term health and social consequences of the pandemic on these vulnerable groups, including low-income communities, racial and ethnic minorities, and individuals with