Chapter 4

The Digitisation of Healthcare in a Global Pandemic:
Implications for Healthcare Quality From Patient, Clinician, and Provider Perspectives

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ABSTRACT

The chapter discusses the rapid digitisation of healthcare during the COVID-19 global crisis and its implications for healthcare quality from patient, clinician, and provider perspectives. Using the example of patient portals, online interfaces that provide patients with real-time access to their health records, the chapter explores how this large-scale shift to digital healthcare has influenced key elements of healthcare quality. These elements include the safety, timeliness, effectiveness, efficiency, equity, eco-friendliness, and person-centeredness of care delivery, as well as patient and staff well-being. The discussion addresses health anxiety exacerbated by remote service delivery and potential associations with cyberchondria and online search behaviours. Additionally, concerns about digital health literacy, equality of access, patient data privacy, and cybersecurity are discussed in the context of increasing health system shocks. Recommendations are made about how the future adaptation of digital healthcare can support healthcare quality in a post-pandemic era.

INTRODUCTION

This chapter will describe the implications of the rapid digitisation of healthcare during a global pandemic on healthcare quality, from the perspective of patients, clinicians, and healthcare providers. First, the concept of healthcare quality will be outlined and how this has been further shaped by the experience of the Covid19 pandemic. Second, patient portals as a digital healthcare innovation will be explored,

including patient, clinician, and provider perspectives of their impact on quality in healthcare. Third, as digital healthcare is known to benefit some cohorts of individuals and disadvantage others, the chapter will consider debates on how patient portal use during the global crisis may have impacted the care experience of those vulnerable to health anxiety and cyberchondria. Fourth, the chapter will discuss the implications of these debates for current concerns. These concerns are equality of access to digital healthcare, security and privacy of patient data online, and the promotion of digital health literacy for people experiencing and at risk of cyberchondria. Finally, the chapter will provide recommendations for how all stakeholders can together co-design the future adaptation of patient portals to support healthcare quality in a post pandemic era.

BACKGROUND

The provision of healthcare quality is a key goal of healthcare systems worldwide. Quality healthcare systems aim to provide services and service outcomes that are without deficiencies or wide variations, conform to agreed standards and meet the defined needs and expectations of those who use the service (National Economic and Social Council, 2011). Since the turn of the century, the objective of quality healthcare has been understood as increasing the likelihood of health outcomes consistent with current professional knowledge (Institute of Medicine Committee on Quality of Health Care in America, 2001). Yet, the notion of *quality in healthcare* is continuously evolving in tandem with developments in knowledge and societal expectations (Health Foundation, 2021). In 2018, the Lancet Global Health Commission on High Quality Health Systems asserted these systems should be efficient and resilient, and consistently provide for better health and its equitable distribution (Kruk et al., 2018). Reflecting these developments, quality in healthcare has recently been conceptualized as progressing through three overlapping phases:

1. The establishment of standards for a care area (Quality 1.0).
2. The improvement of disease management (Quality 2.0).
3. The enhancement of the value of the health service to health (Quality 3.0) (Lachman et al., 2020).

Policy makers and healthcare providers require a good understanding of the concept of *quality in healthcare* to enable them to address existing and anticipated deficits in the provision of high-quality health services to patients and families. The problem of patient safety, a fundamental part of healthcare quality, was first politicized in the global mass media in 1999 when the landmark Institute of Medicine report "To Err is Human" was published. The report identified that over 90,000 Americans die each year due to medical error, more than those who die each year in road traffic accidents (Kohn et al., 1999; Wears & Sutcliffe, 2019). Critically, the report established that the reasons for the high prevalence of error was not bad people but systems failures such as insufficient attention to how the design of the healthcare environment can prevent human error (Kohn et al., 1999). This framing of the reasons for medical error was intended to help promote "blame-free" or "just cultures" and thus encourage healthcare professionals to report and learn from errors. Following the report, multiple national-level epidemiological studies of medical error have been conducted and the international consensus has been that 10% of patients admitted to acute care will experience an adverse event, the majority of which are preventable (Slawomirski et al., 2017). Despite a global patient safety movement and numerous patient safety interven-

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