Chapter 2
Between Digital Dentistry and Geriatric Care in Sub-Saharan Africa:
Information Giving and Use Perspective

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ABSTRACT

This chapter explores digital dentistry and geriatric care in sub-Saharan Africa from information giving and use perspective. There is a growing concern about the increased population turning into elderly groups. Most of the healthcare systems neglect them or where they provide such services; they do so in fragmented ways. Interestingly, the rest of the globe, particularly developed countries, have gone far in incorporating innovative technologies that allow healthcare delivery electronically. Most data lacks sufficient reviews to supplement evidence-based practice on what information giving and getting is and where they differ as such affecting health information behavior of elderly people. The approach used in developed countries to impart knowledge on elderly people directly may not work on the African continent. Such approaches are mostly used to enhance the cognitive abilities of elderly people. In Africa, such initiations should be directed at social institutions, family members, etc. for elderly people to use technology appropriately.

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INTRODUCTION

The preference of elderly people *to age in place independently* meets their predictable dependency on others, which is continually attracting the attention of scholars on how to improve the former and lessen the latter. This is the case despite elderly people engage in regular travel for medical treatment; technologies are extending their assistive hands and presenting many potentialities to help in elderly care (Yap et al., 2022). Dependency of elderly people on other people increases as the global population of 65+ aged group reached 727 million in 2020 and expected to double to more than 1.5 billion people in 2050, which calls for ensuring their quality of life and inclusiveness of all age groups (Pan American Health Organization & International Telecommunication Union, 2023). This is not a surprise, as the global ageing process intensifies proportionately, so does the hope rise in employing ICTs for empowering elderly population, promoting public health, and lessening the burden of healthcare system (Zhao et al., 2022). This hope arose due to the recognition that, ageing populations and chronic diseases upsurge exponentially to the extent challenging or overwhelming the existing healthcare infrastructure and resources necessitating governments to use alternatives to alleviate the sufferings and deliver the healthcare to meet the needs of new age (Frost & Sullivan White Paper, 2017). By digitalizing the entire healthcare service, the main objective is to ensure *attainment of broad health system goals with quality, accessibility, efficiency, and equity* (European Commission, 2019), despite varying opinions about it. Tersely, technological innovations are finding their ways into becoming everyday life of patients where many of them are using consumer-grade software and hardware devices such as *smartwatches, rings, wristbands*, etc., to take care of their health (Bayoumy et al., 2021). In the US alone, about 20% residents use wearable devices, placing the market growth rate at 25%, reaching economic value of $70 billion by 2025 (Bayoumy et al., 2021). Thus, the previous presupposition portraying digital dentistry as not receiving social and political recognition, as medical research does; met technological advancements that put the market size of the digital health industry, as of 2018, at $25 billion (£19 billion or €21 billion). This implies its continuous progress if sustained engagement takes into account clinical practice and patient-centered care (Neville & van der Zande, 2020). This is true, as the above-mentioned figure was just an estimate in the pre-COVID-19 pandemic and because of the increasing trend in digital dentistry supported by Internet of Medical Things (IoMT) coupled with big data, analytic algorithm, ICT, augmented and virtual reality, AI (Alauddin et al., 2021), the future of digital dentistry is promising and remains a continuum of importance.

To emphasize this claim, Grand View Research, (2023) reported a forecast for the period of 2023-2030, indicating that the Global Dental Services Market experienced