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3.4 The Third Layer of the DigiCare Model: Community

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The DigiCare Model is based on a socio-ecological framework that includes individual, family, community, and societal levels. The first two layers focus on the person and family, emphasizing their roles in developing self-management skills for chronic disease care. The third layer extends to the community level, recognizing its impact on individuals' health. Community support, resources, and services play a vital role in promoting effective self-management and improving health outcomes. The DigiCare Model aims to create a comprehensive framework that considers the broader community context to enhance self-management and overall quality of care. In this chapter, we will explore the essential concepts within the community layer. To facilitate a deeper comprehension of the topic, we will conclude the chapter by providing a selection of recommended readings for further exploration.

At the third level of the DigiCare Model, the community is integrated into the framework, following the socio-ecological perspective (Figure 11). In this context, a community refers to individuals living in the same neighbourhood and being in close contact with each other, as defined by Bronfenbrenner (1977). However, the practical manifestation of a community can vary across different contexts. The DigiCare Model highlights the significant impact of the community on the well-being of individuals and their families. Since many chronic conditions require lifestyle changes, such as dietary modifications, exercise routines, and medication adherence, (Maini et al., 2020), the management of these conditions primarily takes place within the community setting (El Arifeen et al., 2013). This underscores the importance of community involvement in supporting and promoting effective self-management strategies (Ridell et al., 2016).

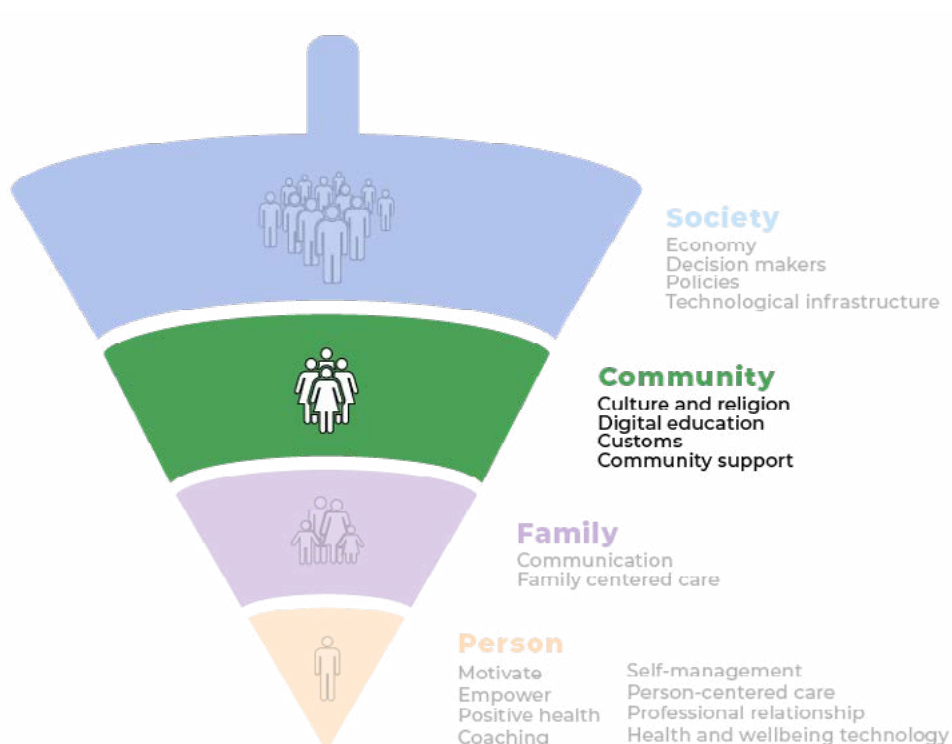


Figure 11. The third layer of the DigiCare Model: Community.

Culture, Religion, Customs

Within the DigiCare Model, the community plays a crucial role in the management of chronic diseases. This can be examined from various dimensions, including culture, religion, and customs, which have a significant impact on improving care for vulnerable individuals (Kim et al., 2016) and reducing the burden on healthcare systems (Anh et al., 2013). As we strive to promote self-management of chronic diseases, it is essential to consider the influence of culture.

Being part of a community typically entails sharing cultural and religious beliefs, customs, and traditions. Culture consists of multiple layers, with the outer layer encompassing visible aspects such as symbols, clothing, and behaviour. However, these observable elements are manifestations of deeper layers, including beliefs, attitudes, and

values, which may be more challenging to discern (Trompenaars et al., 2021). Nonetheless, these cultural factors have a significant impact on individuals and their families as recipients of health services.

Cultural beliefs prevalent within a community have a significant impact on individuals' perceptions, attitudes, and behaviours regarding health and illness (McCallum et al., 2017). Attitudes and norms play a crucial role in influencing people's behaviour (Icek, 1991). For instance, an individual's beliefs about the causes of their disease or appropriate actions for treatment inevitably shape their attitude towards modern medicine and their health-related behaviours (Jones et al., 2014). Conversely, cultural misconceptions or stigma associated with certain conditions can pose barriers to effective self-management and hinder community acceptance. Therefore, it is essential to implement culturally sensitive and inclusive health practices and interventions (Khan et al., 2020). Understanding this layer of the DigiCare Model and respectfully exploring the deeper cultural layers is important to comprehend the underlying ideas that guide an individual's behaviour.



Barriers to lifestyle and health behaviour change often have a cultural dimension and manifest as attitudes or norms.

Cultural barriers can significantly impact the coaching process. In the first layer of the DigiCare Model, coaching was introduced as a method to enhance patients' capacity and motivation for better health management and improved quality of life (Read more in Chapter 3.2). In both coaching models, such as the GROW and 5A's models, a crucial step involves identifying barriers to lifestyle and health behaviour

change. These barriers often have a cultural dimension and manifest as attitudes or norms (Abel et al., 2018). Therefore, it is important to identify and understand these cultural barriers to address them effectively.

In addition to cultural factors, religious support and coping mechanisms play a significant role in creating an environment where individuals feel understood, respected, and supported in accepting and managing chronic conditions. Coping mechanisms rooted in religious beliefs can effectively enhance the care of chronic diseases (Celik et al., 2021). Likewise, spirituality has been found to reduce symptoms of depression and anxiety, thereby positively impacting the quality of life for individuals with chronic diseases. Consequently, acknowledging and understanding the religious aspects when coaching and supporting self-management can enhance long-term management of chronic diseases (Mendes et al., 2021).



Read more about Culture, Religion and Customs



AHRQ. (n.d.). Agency for Healthcare Research and Quality. Consider Culture, Customs, and Beliefs: Tool #10. Health Literacy Universal Precautions Toolkit, 2nd Edition. <https://www.ahrq.gov/health-literacy/improve/precautions/tool10.html>

AMA Journal of Ethics. (2018). Religion and Spirituality in Health Care Practice. <https://journalofethics.ama-assn.org/issue/religion-and-spirituality-health-care-practice>

Care Quality Commission. (2022). Culturally appropriate care. <https://www.cqc.org.uk/guidance-providers/adult-social-care/culturally-appropriate-care>

UNFPA. (n.d.). United Nations Population Fund. Culturally sensitive approaches. <https://www.unfpa.org/culturally-sensitive-approaches>

Community Support

Communities play a crucial role in providing support for individuals living with chronic diseases (Fisher et al., 2015). These support networks can assist individuals in dealing with the physical, emotional, and psychological challenges that come with chronic conditions (Callus & Pravettoni, 2018). In Asian cultures, there is a strong emphasis on community orientation, where individuals are viewed as integral parts of their families and communities, in contrast to the individual-centered approach commonly seen in Western societies. Within family-centered societies, the community serves as a source of support for individuals (Beitin & Aprahamian, 2014). In such contexts, a change in the health status of one family member affects the entire community (Ryan & Sawin, 2009). Furthermore, there may be financial implications when a family member becomes ill (Abel et al., 2018). Considering these factors is essential when delivering care to these populations.




By actively engaging the community, we can foster a supportive environment that encourages and facilitates positive health behaviours.

The main emphasis of self-management revolves around making lifestyle changes. Hence, when recommending interventions to patients, it is crucial to consider their community context. It is important to acknowledge that the attitudes of others within the community may not always align with official recommendations, potentially hindering an individual's willingness to take action (Smith et al., 2014). This underscores the significance of involving the community in health education initiatives (Kangovi et al., 2017). By actively engaging the

community, we can foster a supportive environment that encourages and facilitates positive health behaviours.

Community support can be provided through a range of facilities and resources. Peer support groups (Callus & Pravettoni, 2018), local health clinics (Wang et al., 2017), recreational centers, and other community resources (Adams et al., 2019) play a vital role in offering social interaction, emotional support, and practical guidance. These community-based resources contribute to enhancing an individual's self-management skills and overall competence in managing their chronic condition (Anh et al., 2013). By leveraging these various support systems, individuals can receive the necessary assistance, encouragement, and knowledge to effectively navigate their self-management journey.

Digital Education



At this level of the DigiCare Model, the role of digital devices and technologies in promoting self-management is examined within a broader context. As global access to digital devices and the internet continues to improve (International Telecommunication Union, 2022), it becomes increasingly important to integrate these technologies into healthcare delivery. This requires ongoing education and awareness of the benefits of digital healthcare (Mensah et al., 2023), as well as sufficient competence among healthcare professionals to utilize digital technology in both hospital settings (Konttila et al., 2018) and remote healthcare settings for both professionals and patients (Prodhan et al., 2018).



One approach to facilitate the shift from in-person to online and remote care for chronic diseases is to combine two different methods of supporting the individual's self-management abilities. An intervention that involves both guidance from a healthcare professional and participation in online coaching helps enhance the patient's knowledge and awareness of their condition, reduces anxiety, and increases their motivation to improve their well-being (Early et al., 2017).

Decision-makers need to be supported in recognizing the potential of digitalization to shift the burden of chronic disease management from healthcare services, such as hospitals and healthcare centers, to the community by utilizing digital tools for healthcare delivery (Uddin et al., 2017). This necessitates additional training for healthcare professionals in the use and acceptance of technology, as well as the ability to advocate for and support patients in utilizing digital healthcare services (Nguyen et al., 2022). Furthermore, it requires significant investments in resources, particularly in low-income countries (Alam et al., 2020). It is important to note that the design of a digital healthcare platform necessitates a thorough understanding of its benefits, values, and potential risks, including considerations related to interfaces, infrastructure, users, data security, and local regulations (Ruokolainen et al., 2023).




The use of technology in healthcare and self-management of chronic diseases can save time, reduce the need for travel to healthcare facilities, improve communication and involvement among families and healthcare providers, and enhance safety in care.


Integrating technology into healthcare services can lead to improvements, although it may present certain barriers. Technology integration directly impacts patient care and related tasks, such as equipment use and service, while also requiring individuals to acquire new skills and potentially enhancing their daily work activities. The use of technology in healthcare and self-management of chronic diseases can save time, reduce the need for travel to healthcare facilities,

improve communication and involvement among families and health-care providers, and enhance safety in care. However, it is important to note that the use of technology can also evoke feelings of anxiety, stress, and a sense of reduced personal control for patients, families, and healthcare professionals (Bayramzadeh & Aghaei, 2021).

Digital education aimed at developing skills in using digital tools and accessing additional support for managing chronic diseases should be considered a future goal in many low- and middle-income countries. This is crucial for increasing access to care and promoting equity in healthcare services (WHO, 2022; WHO, 2023). Digital platforms offer opportunities to raise awareness about chronic diseases, share self-management strategies (Frith et al., 2021), and combat stigma at the community level (Hao et al., 2022; Livesey et al., 2022). Furthermore, these platforms can provide online forums where individuals can connect with others facing similar health challenges, fostering virtual support communities (Hao et al., 2022).



In conclusion, the community in the DigiCare Model is not just a backdrop against which individual chronic disease management occurs; it is an active and dynamic entity that can both facilitate and hinder self-management. Engaging with communities to improve understanding, reduce stigma, foster supportive environments, and leverage local resources can be a powerful approach to enhance chronic disease self-management competence.



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