In Finland, health and welfare is taken care under the common health and social services system that consists of independent private, public and third sector actors. Through taxation, municipalities finance most of the healthcare and the government provides additional support. Functionality and effectiveness of the overall system is vitally important to guarantee today’s good healthcare services. For instance, in social services and healthcare, digital health supports the quality of life, care, dignity and sovereignty. The necessary technology is equally, fairly and easily accessible due to the widespread technological infrastructure. For example, in healthcare, use of technology is agreed with the citizen when preparing the healthcare service plan. The documentation of patient data is carried out virtually at all levels of care. Technology offers options that can paradoxically mean both freedom and slavery depending on how and where technology is used, and who has the right to use it. Furthermore, the digital divide has narrowed, but it still exists. Due to the ageing of people, there is a growing need for healthcare staff who are digitally knowledgeable in order to support citizens and their families in health issues. When studying different digital health related strategies from 1995 to 2020, the vital role of healthcare staff is recognised and their technological competence and skills need to be updated along with the development of technology. During the last decade, in the latest strategies, the role of the citizen as a key part of the healthcare service chain has grown significantly. Simultaneously, the development of a digital society offers possibilities to participate and the advanced digital expertise of citizens promotes their participation in healthcare. In principle, everyone has possibilities to access health data and gather health related data via Internet databases. This article discusses the elements of citizen or patient and nurse interactions, and how and whether this challenges nurses.

Keywords: digital health; citizens; nursing care; Finland

Introduction

The development of healthcare is connected with legislation. For over two decades, Finland has invested substantially in eHealth (today called digital services) in order to promote greater care coordination in social and health care. Along with the digitalisation of healthcare, the concept of patient-centeredness in care has developed, and has long roots. By law, a patient has the right to expect good quality healthcare. Patients must be treated in such a way, that their beliefs and privacy are respected and their dignity stays unoffended. Furthermore, a national digital archiving service system offers patients the right to access their own health records. ‘Kanta’ service, a nationwide harmonised electronic patient record and patient data repository is accessible to all citizens. This information system includes all public and private healthcare providers and features mandatory electronic prescriptions (ePrescriptions). Since September 2016, electronic patient records have covered the entire population in the health sector. For the citizen, there is a health portal ‘My Kanta Pages’ that allows citizens to view their own information. For social welfare services, the archive will be launched for public and private services and is expected to be fully operative before 2023. The eHealth and eSocial Strategy 2020 Strategy supports the renewal of the social welfare and healthcare sector, and the active role of citizens in maintaining their own well-being by improving information management and increasing the provision of online services. The newest national strategy, A cohesive society and sustainable wellbeing 2030, enhances customer-orientation and agility via new legislation. New tools for prevention and promotion will be developed to support individuals’ quality of life, participation, equality and social networks. Simultaneously new tools and information will help professionals and decision-makers solve health and welfare problems. Artificial intelligence, personalised medicine, social innovations as well as the responsible use of social and healthcare data will create new services and improve access to services. New ways help to better identify people’s needs and enhance diagnostics, service choices,
drug development and self-care. It is anticipated that open, accessible and plain language technology increases equal access to health services.  

In addition, the Competences and Skills In 2035, report, shows that future skills are needed to enhance the management of change. Such skills include problem solving, self-regulation, the ability to learn, development and management of personal competence and information evaluation skills. The importance of digitalisation skills is highly recognised. The skills needed include management of remote and virtual services, different platforms, information evaluation skills, use of digital solutions, research and development of digital operations, management of multidisciplinary networks, management and use of mobile applications, expertise related to smart systems, familiarity with the Internet of Things (IoT), and skills related to the management and control of digital operations. Various professional fields have their own competences. The report anticipates relevant skill in healthcare as presented in Figure 1. 

In Finland, both the competences of citizens and professionals are emphasised in all current healthcare strategies.  

Towards patient-centred care  
The first European Act on patients’ status and rights came into force in 1993 in Finland. The ‘patient act’ mainly concerns the patients’ right to information, provision of informed consent to treatment, the right to see any relevant healthcare documents, the right to complain and the right to autonomy. Furthermore, according to the 1987 Patient’s Injury Act amended in 1999, the patient has the right to compensation for unforeseeable injuries resulting from treatment or diagnosis. In healthcare organisations there must be a named ‘Patient Ombudsman’ who works to promote and enforce patient’s rights via advising and providing information on the patient’s status and rights.

Citizens as healthcare service users, can be treated as a client/customer but are to be called patients. Currently, the national platform manages citizens’ personal information in health and well-being areas. Citizens have both rights and responsibilities and due to the rich information infrastructure, citizens are expected to take care of their own health by using online services and producing data for their own use as well as for the professionals. The most comprehensive source of citizen information is the Internet. The majority of Finnish municipalities have web pages where a person can find information on the healthcare system in their municipality. Hospital districts also have their own web pages. These web pages contain, for example, information on services, contact information and information on decision-making. Finland has a growing number of health-related information resources for the citizen, from secured healthcare data to evaluation of personal symptoms (e.g. personal pandemic symptoms) and share the information with the public organisation. A novel app was launched and citizens approved of it immediately. Citizens use the ‘Koronavilkku-application’ which is a contact tracing app produced by the Finnish Institute for Health and Welfare (THL) to help the citizen find out whether he/she may have been exposed to

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Figure 1. Anticipated competence needs in the healthcare field in 2035.
coronavirus. Based on follow-up, citizens obviously want to take responsibility together for breaking the chains of Covid-19 infection. The Koronavilkku application reached two million downloads, and it has sent over 200 Covid-19 infection notifications during one month. The active role of the citizen in healthcare is encouraged. However, self-care does not mean self-care by the patient himself but a professional evidence-based treatment, planned together and best suited to the particular healthcare situation. 

Digital health services have to answer to citizen/patients’ needs, be easy to use, give persons the power to control their own data, and provide a possibility to communicate with a trusted health professional. Nonetheless, digital health services cannot replace all face to face interactions. When using digital services, it is important to build a confidential relationship between the patient and the professional, for example by enabling interactions with a familiar professional. A healthy community is based on people valuing and caring for each other.

**Role of nurse changes along the citizen involvement**

Nurses as the largest occupational group in the health sector play a central and critical role in improving access and quality healthcare for the population. In the European Union, the ratio of nurses to Finnish population is the second highest after Denmark. Nurses provide essential services that promote health, prevent diseases and deliver healthcare services to individuals, families and communities based on the primary healthcare approach. Nurses’ work include teaching and guidance, organising medication and follow-up, assessing the client’s learning and health motivation, supporting clients’ self-care and encouraging them to use support resources in the community. Together with citizens, nurses guide a person’s health and lifestyle changes through reminding, supporting and regular interaction. The number of mobile apps for health professionals has increased exponentially. In order to work with citizens, nurses need to have enough updated information related to versatile digital tools and applications.

Professionals want to be involved in making decisions regarding digital health that will affect their future work and working conditions. The role of nurses in primary care has gradually expanded and now includes limited prescribing and care coordination. Beyond prescribing, the role of nurses has been strengthened in chronic care, including thorough involvement in multi-professional care coordination teams, management of chronic diseases and conducting patient consultations. Digitalisation streamlines nurses’ work and facilitates its implementation, but also requires competence. The nurse must manage large entities, have resources and new technological solutions and must be easy to manage and enhance or complement patient care.

In healthcare centres, clients/patients have first contact with a nurse who can prescribe certain medicines and take care of minor health problems without prior consultation with a doctor. This is an important part of the health service. Only after an assessment of the need for treatment, will a doctor who is either on-site or remote be consulted if necessary. The feedback from clients/patients has been positive and the nurse’s consultation has in most cases been considered more holistic than that of a doctor’s consultation, because the nurse has more time for the patient. Clients/patients also receive assistance smoothly when access to a nurse’s office is faster than to the doctor’s office. According to a study, patients wish for more active engagement from healthcare personnel in informing them about the availability of digital health services as well as providing guidance and encouragement in using new services. Respondents hope for a more versatile digital booking of appointments and novel, easy-to-use communication channels with the personnel.

The nurse is in a significant role in the multidisciplinary care of the client/patient. Comprehensive nursing skills are needed in home care and nursing homes, where the nurse consults the doctor. In the care of emergency patients, the nurse is one of the team’s experts. If required, nurses act as liaisons or advocates for clients. A ‘care and service plan’ is drawn up together with the client / patient and with the necessary professionals. The work emphasises a proactive approach. Nurses ensure the implementation of the plan together with both the client and the multidisciplinary team. In primary care, the nurse is responsible for the continuity of care of the client / patient. The nurse has expertise in handling many things and hence she can contribute to the management of services with her own work input and from the client / patient and organisational perspective. Nurses are at the forefront of health counselling and the role of nurses in preventive health care is essential. Preventive action and health counselling requires a wide range of expertise as well as new modern service channels management (cf. digitalisation). Preventive work should be enhanced and highlighted in the future as well as increased as it would lead to savings. Clients / patients most often meet with nurses and therefore discussing lifestyles, even bad living habits, is a key task for nurses. This is particularly emphasised at nurses’ appointments. Preventive healthcare is provided not only in social and healthcare, but in the size of the capacity of municipalities. Sports, educational and cultural services, community services are part of preventive work.

Digitalisation has taken a huge leap in recent years. However, there still remain regional differences in the use of digitalisation. Digitalisation opportunities have been taken to the primary health care side and without sufficient education, the use of digitalisation has been somewhat deficient. There are expectations that new services reduce healthcare costs. It has not yet been achieved in the utilisation of applications to a level that would have reduced enough work and facilitated operations. Electronic applications should be taken into practice step by step so that they can be
Digital transformation has already changed and will continue to change work processes. At the same time, the professional requirements of the staff are also changing. Digital transformation affects, for example, communication (how to digitally create a reliable care relationship with customers, how to convey empathy, etc.). Nurses want to be in the development of digital health. The Finnish Nurse Association launched its eHealth strategy 2015-2020, and a key approach is the role of nurses in the development and realisation of eHealth services and the strengthening of the involvement of citizens in self-care and self-management. Nurses have access to information systems and electronic applications to support their work and its operational processes, which they must know how to utilise. Citizens have the ‘My Kanta pages’, which can act as an excellent tool for cooperation between nurses and patients/clients.

CONCLUSION

The development of digital health care aims to improve accessibility, availability, quality of services with lower costs. Furthermore, digital services provide information used in early detection and self-care, disease prevention, treatment and improvement of continuity in care. Citizens are expected to use both online services and produce data for their own use and for professionals. Citizens’ willingness and readiness to use digital services has grown. Available services for use in pandemics like Omaolo and Koronavilkk are adopted by the citizens. An interesting development in September 2020, is ‘Taloustutkimus’, a full service market research company that published the results of the survey “Verkkobrändin arvostus Suomessa 2018” (Valuation of online brands in Finland 2020). The survey investigated the well-known Finnish and overseas online brands. In 2020, national ‘Kanta.fi’ was the second most valued Finnish online brand among almost 100 best-known Finnish online brands. The best media brand is Yle Areena, part of Yle, which is a public service broadcasting company.

This all shows that citizens use available information sources, which are easily accessible and free of charge. This offers many possibilities to develop many-sided digital health services, where staff can create and learn new working manners. During exceptional times, like the pandemic and with shortage of healthcare staff, new fields of virtual work may need a new approach and strategy to deal with balancing working hours and personal life. The second eHealth strategy for Finnish nurses is under a revising process and will focus on novelties in nursing care, which together with citizens will delineate new approaches.

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