

Poland Emerging Telemedicine

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Abstract

Poland emerging telemedicine development and assessment of algorithms for delivering tailored and targeted patient innovative decision support during Covid-19 pandemic. Evaluating varied National Health Policy change and establishing outcomes of proposed a conceptual model of integrated, transdisciplinary artificial intelligence of Polish Public Health.

Keywords: COVID-19; medical device regulation; Poland health policy; remote consultation; SARS-CoV-2; telemedicine.

2nd International Conference on Social Sciences, Humanities and Arts

1. Introduction

Significant development has been seen in telemedicine over the last two decades, with the development of various terms such as mHealth and eHealth that describe healthcare delivery at a distance by utilising different telecommunication systems and devices (Glinkowski et al., 2018). The field has received considerable support from the European Commission. Telemedicine utilises medical information and swaps from one site to another through electronic communication to enhance patients' health status (Kańtoch and Kańtoch, 2020). It does not involve direct contact between the physician and the patient. Implementation and advancement of IT technologies in the medical field provide a chance to enhance the efficiency and quality of treatment and the functioning of the health care system as well as health care institution management (Smith et al., 2020). Poland has a long tradition of the idea of doing medical procedures from a distance through the application of communication technology. An example is the first clinical teleelectrocardiography conducted by professors Witold Lipinski and Marian Franke, which involved a wired transmission at about five hundred meters cubed (Glinkowski et al., 2018). It is believed that the use of technology has the potential to enhance public health and clinical care through various approaches such as facilitating medical education, improving access to health care, enhancing the service delivery quality, improving the effectiveness of primary care and public health interventions, and promoting research. The paper focuses on telemedicine development in Poland and its utilisation during the Covid-19 pandemic.

2. Discussion

Covid-19 has significantly affected various activities globally. A substantial factor that helps control and slow the virus transmission is a social distancing that reduces person-to-person contact (Kańtoch and Kańtoch, 2020). Other control measures put forward include quarantine, travel restriction and wearing of protective masks. However, people at a greater risk of getting infected with the disease, such as those with underlying diseases and the elderly, are required to receive daily care to ensure their health progress is monitored (Smith et al., 2020). Going for physical check-ups in hospitals exposes them to the risks of getting coronavirus. As a result, Poland has invented innovative and unique solutions to address the Covid-19 patients as well as other patients who require medical attention. Telemedicine reduces the contact between the patients and the physicians and reduces the need for patients to visit hospitals for check-ups (Glinkowski et al., 2018). The application of telemedicine also has the potential to control the disease, enhance the research of epidemiology, and manage the clinical cases.

The use of telemedicine is patient-centred and protects the patients, the healthcare providers and others. With the rapid technological evolution today, most families possess at least one

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Sciences, Humanities and Arts**

digital device, such as a smartphone, that allows audio and virtual communication between the healthcare provider and the patient (Smith et al., 2020). Television systems and video conferencing are also utilised to deliver medical care programmes to quarantined and hospitalised individuals to decrease the risk of exposure to employees and others. Telehealth has significant benefits, especially when handling non-emergency or routine care in health services that do not necessitate direct physician-patient interaction, like psychological services (Glinkowski et al., 2018). Additionally, the approach keeps people safe, including the health workers, patients and the general public and increases access to the caregivers. It shortens the duration and reduces the visits to the physician's office. This approach helps the doctors to monitor the patient's condition constantly in urgent cases, optimise the running cost of the medical office, accumulate detailed data during the disease, save the patients' and care givers' time, and increase the prestige of the facility.

Most of the individuals in Poland receive medical advice through the phone and believe that e-prescription would play a significant part during the pandemic. According to the statistics collected by Statista (2021), ninety per cent of the Poland population would consider using telemedicine services for E-prescription, seventy-seven per cent for telephone advice, seventy-four per cent for e-sick leave, sixty per cent for online pharmacies, thirty-eight per cent for video chat, forty per cent for mailing the doctor, and twenty-seven per cent for chats. So far, Poland has performed over 150000 examinations through telemedicine (Statista, 2021). Reports show that sixty per cent of polish patients are ready for the implementation of telemedicine solutions. The millennials have significantly been affected by the technology, which makes them open to telemedicine as a novel form of health service provision.

IT technologies such as Medcover and Polmed are used for teleconsultation and telemonitoring. Patients consult the online outpatients' clinics that provide assistance when the patient cannot visit a doctor for various reasons (Kańtoch and Kańtoch, 2020). The consultation can be done through audio calls, email, video conferencing, and chat, amongst others. Notably, the approach has helped significantly, especially now during the Covid-19 pandemic when individuals are required to stay at home to reduce the risk of being exposed to the infectious agent (Smith et al., 2020). Another example of telemedicine in Poland includes telediagnosics, where examination results done at one location are sent to a doctor in another location for diagnosis and interpretation.

3. Health Policy

Regulations mainly focus on implementations and standard-setting, which mainly concerns conditions of the delivery of health services to the patients, medical personnel training, service

2nd International Conference on Social Sciences, Humanities and Arts

providers operation and ensuring the patients' rights are observed (Sowada et al., 2019). The Agency of Health Technology Assessment and Tariff System was established in 2005 in Poland and acts as an advisory body for the minister of health, especially in the regulation of technologies used in the medical field. Based on the Polish Act passed in 2010 concerning medical devices, the software is considered a medical device if the manufacturer intended it to be used for human beings for activities such as monitoring, diagnosis, treatment, prevention and alleviation of a disease (Kańtoch and Kańtoch, 2020). Telemedicine involves the use of the technology for the above-stated reasons; therefore, using it in Poland is in line with the health policy (Sowada et al., 2019). Other legal regulations include regulation 2016/679 put in place by the European Parliament and the twenty-seventh April 2016 Council on the natural person protection, in regards to the personal data processing and on the free movement of patients' data as well as repealing directive 95/46/EC which is the General Data Protection Regulation. The Electronically Supplied Service Act implemented in 2002 gives an obligation to the service provider associated with Electronically Supplied Service (ESS), the rules that exempt the service provider from any liability for ESS services. Telecommunication Law, implemented in 2004, gives regulations on the storage and access of the information in the telecommunication terminals equipment such as smartphones.

What is required is a discursive and impartial further examination of whether telemedicine is lawful and meets all medical requirements? This will allow to not only identify those features which tend to provoke the public health to support Telehealth but also unseen indicators such as the number of people at risk of harm, the identity of those at risk (a minority community, lack of internet, age related technological issues, insufficient equipment). Identifying these features and indicators is essential as it is only by identifying specific points of similarity between cases like this could analyse whether telemedicine has fulfilled these conditions to operate fully safely. This means we must not process the data in a way that is unduly detrimental, unexpected or misleading to the individuals concerned. Telehealth must operate on clear, open and honest principles to ensure people from the start about how they will use their personal data. Each public or private E-organisation should do this through the transparency (privacy) notice on the organisation's website and they should ensure patients do what they can within their remit in whichever way is required.

On other hand all adverse event, near miss or incidents that may occur during application of Telehealth supposed to be reported in national data base in accordance with national/local policies? What would identifies trends which may alert us to potential problems as well as it may be used for auditing purposes to aid organisational learning.

In conclusion, Poland has shown remarkable progress in the telemedicine field over the last years. Telecommunication plays a significant role in the medical field during the Covid-19

2nd International Conference on Social Sciences, Humanities and Arts

pandemic since it allows access to health services without direct contact with the physician, a practice that allows to reduce the risks of exposure. Poland has adopted various telemedicine practices over the years, such as teleconsultation, tediagnosis and e-prescription. Numerable health policies have been implemented to ensure medical technologies are regulated and patient's data is protected when using telemedicine, nevertheless all need close monitoring for further safety measurements and constant calibrating those health policies.

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