Telepharmacy Service: Contributions and Controversies

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It is impossible to imagine any scenario for the patient centered healthcare system that does not involve the use of many forms of technology and automation. This assumption holds true regardless of the practice setting selected. Consider that technology has two primary purposes. Both of the purposes of technology involve the work of humans. One purpose for technology is to replace completely the work done by humans. Technology usually excels at replacing work that is repetitive and work that is often found to be tedious by humans. Ideally, technology should be considered for selection and implementation when it can free a human being to be redeployed into a work process that requires the abstract, judgmental, and higher-level cognitive processes at which humans excel. Application of the information and communication technologies (ICTs) to the health sector can open new perspectives in the delivery of health services and can contribute to limit the problem of decreased availability of health professionals. One opportunity can be represented by telepharmacy services. Nowadays, the shortage of health personnel, and in particular pharmacists, is a challenging issue that the health systems have to face. The use of a new technology such as telepharmacy can represent a possible option to solve these problems. While most people think of telehealth in relation to surgeries performed between countries using remote robotic control, telehealth can be delivered in the same room in which a practitioner is standing. Consider that a diabetes educator can delegate the initial education of the newly diagnosed patient with diabetes to a technology that is a multimedia program. This program can deliver age-specific, gender-specific, race-specific, and diagnosis-specific education in an interactive format that allows the patient to comprehend and retain the educational material as effectively as a one-tone interaction with a human educator. As long as the content provided by the technology is maintained to be accurate, complete, reliable, and relevant one can allow technology to totally replace the repetitive work of educating a newly diagnosed patient with diabetes. What is left for the practitioner is the more complex customization and troubleshooting that is needed by these patients. By delegating to the technology, the practitioner is able to be in two places at the same time in a literal sense.

Telepharmacy involves bringing care to patients when it is not feasible to have patients brought to the care setting. Many clinics, upon diagnosis, would like to dispense prescriptions and other medical supplies to patients, but the clinic volume of prescribing activity may not be significantly high enough to justify the placement of a pharmacist in the clinic. Some clinics are connecting, using telecommunication technology dispensing devices, to a remotely located pharmacist who is able to control the verification and dispensing process without physically being in the clinic. Other potential benefits of telepharmacy include restoring access to health care, improving rural physician-pharmacist relationships, and improving economic development in medically underserved communities. Losing the only retail pharmacy within a rural community can influence the access to prescription and OTC medications and, in some cases, leave the community without proximate access to any clinical healthcare provider. Pharmacies that currently operate in remote areas face the problem of service sustainability because of recruitment and retention of pharmacists, leading to difficulties in creating succession plans. As such, residents have to either drive to the nearest pharmacy or use mail order or online services to fill their prescription, which is a particular concern for frail individuals with limited mobility and limited support or without the connection/competence of information technology. Using video conferencing, pharmacists are able to provide real-time patient counseling and manage a medication use system via remote control. Telepharmacy operations are proving to be a cost-effective method to render high-quality pharmacy services in underserved regions and can be a much-preferred alternative to physician/nurse/clerk dispensing options. Telepharmacy enables healthcare services such as medication review, patients counseling, and prescription verification by a qualified pharmacist for the patients located at a distance from a remotely located hospital, pharmacy, or healthcare center. Organizations such as the Veterans Administration are reporting early successes for many of their telehealth initiatives. Outside of closed system uses of this technology, reimbursement is a barrier to the implementation of the technology.

Currently, real-time, live consultation over telecommunication technologies is the only practice interventions/consultation being reimbursed by the payers who recognize the value of these services. "Despite the slow growth of interactive and noninteractive telemedicine, technological development continues, and many new applications are under study. Remote patient monitoring programs, especially those based on store-and-forward technologies, are appealing because they are relatively inexpensive, increasingly convenient for patients and providers, and have the potential to cut the costs of care while improving outcomes. However, there are unsolved limitations (e.g., legal implications) that make greater diffusion of telepharmacy difficult. Stronger data on the effectiveness of this area of pharmacy care, together with a critical evaluation of its limits, can make actors involved aware about the potentialities of it and could contribute to a larger diffusion of telepharmacy services in the interest of communities and citizens. Medicare and other insurer reluctance to cover telemedicine has slowed its dissemination, but recent years have seen progressive, though limited, steps to extend reimbursement. The opposition fears that telepharmacy will ruin the profession, or at least the business of running a pharmacy, especially when neighboring towns are home to a "traditional" pharmacy. Those owners fear that telepharmacies in nearby towns will decrease prescription volume at their store, thereby reducing its viability as a business. While the intent of telepharmacy is to increase patient access to care, the potential for misuse of the technology is high. Critics of telepharmacy also worry about the increased responsibilities placed on pharmacy technicians as the most senior employees inside of the pharmacy. In addition, patient acceptance of technology and highly variable state laws regarding telepharmacy are large hurdles that need to be overcome to permit its diffusion across the nation. There is wide variation among state regulations pertaining to the setup and operation of telepharmacies. Trends in telemedicine show that telepharmaceutical care is likely to continue to expand as it allows for a better allocation of resources and access to more patients. However, research needs to be conducted to specifically analyze the value and place for telepharmacy services.