Patients with Kidney Disease: Ready to Use Smartphones for Health Care Delivery?

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Introduction

Are patients with kidney disease on dialysis ready to use smartphones to assist with their daily health care? From the perspective of a patient with kidney disease warrior of 18 years, the answer is absolutely yes! Patients with kidney disease are more than ready to implement mobile health into their health care, and they have the ability, intellect, and interest to do so. As a member of the Board of Directors for the American Association of Kidney Patients, I have seen firsthand their proficiency with technology and smartphones.

Patients with Kidney Disease Need Advanced Technology

Kidney failure is a battle, and patients need every tool available to help them fight and manage this life-threatening disease. Patients with kidney disease are so overdue for advanced technology support that having the use of a smartphone at their fingertips to help monitor their health would make a remarkable difference.

In this issue of CJASN, the study “The Mobile Health Readiness of People Receiving In-Center Hemodialysis and Home Dialysis” aimed to determine if patients on in-center and home dialysis had the readiness to successfully implement mobile health into their health care (1). The conclusion was that “[t]he majority of dialysis patients surveyed were ready for, and proficient in, mobile health” (1).

This is the largest known study assessing the technological readiness of patients on in-center and home dialysis in the United States. Inordinate strengths of the study are the breadth and scope of the patients on dialysis who were surveyed: 949 patients, including English- and Spanish-speaking patients on in-center hemodialysis, home hemodialysis, and peritoneal dialysis. The patients on dialysis were from 21 in-center facilities and 14 home dialysis centers within the three states of California, Texas, and Tennessee (1). The study measured patients’ technological readiness, proficiency, and motivation to utilize mobile health in their everyday health care.

Technological Readiness

The study reports that 81% of patients owned smartphones or other internet-capable devices and that 72% reported using the internet (1). Phones continue to become more sophisticated and easier to manage, with many patients already using their smartphones for over a decade for monitoring their nutrition, using other health apps available, and participating in global conferences with patients and doctors around the world. Some mobile apps will seamlessly integrate the patients’ data into charts and graphs so they can see the comparison from day to day right from their dialysis chairs. If patients cannot measure and monitor their health, it is difficult to manage it and make necessary changes for improvement.

Most patients see their nephrologist only once a month, and that is just not enough for patients to properly manage their kidney health. Mobile health could help support those needs. Having been on dialysis for over 13 years utilizing all of the different modalities, I would have welcomed any kind of mobile phone or medical device to help me in monitoring my health. I led a support group for patients with kidney disease for a few years and found that many patients were at a loss about their health and what was happening to them, how they were doing, and what was to happen next. Ongoing access to their medical information via a smartphone would have eased their anxiety and concerns.

Proficiency

Patients with kidney disease on dialysis have to deal with one of the most daunting patient medical devices, the dialysis machine. Understanding how it works and why is a real education in medical science. So, it is not surprising that the study indicates 98% who used mobile devices could both read and type on their devices. A large proportion, 89% of users, reported not requiring assistance in using the internet, and the majority (70%) reported intermediate or advanced mobile health proficiency (1).

Motivation Readiness

Patients with kidney disease are far more intelligent and capable of adapting to change than many give them credit for—and they aspire to live full lives. With the onslaught of the coronavirus disease 2019 pandemic and the chaos it caused in the medical community, the learning curve of patients with kidney disease in the...
A New Era

The Executive Order on Advancing American Kidney Health has been a groundbreaking policy strategy for the health of patients with kidney disease, creating the framework for medical breakthroughs, such as mobile health devices. It will mark the start of an era where we will see the development of more medical devices and technology in the fight against kidney disease.

Releasing mobile health and integrating it into the kidney health care system will empower patients to embrace taking charge of their health. Providing personalized health information to patients will bring a shift in the way the care of patients with kidney disease is delivered. Now is the time for the kidney care team to get on board to implement mobile health in their care of patients with kidney disease.

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References

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See related article, “The Mobile Health Readiness of People Receiving In-Center Hemodialysis and Home Dialysis,” and editorial, “Mobile Health in Dialysis: The Best Engagement Medium Is the One that’s with Patients,” on pages xxx–xxx and xxx–xxx, respectively.