The Impact of Telemedicine on the Future of the Patient Experience

by

Rhajni Gooden

B.A. Health Administration and Policy & B.A. Biological Sciences,
University of Maryland, Baltimore County, 2019

Submitted to the Graduate Faculty of the

Department of Health Policy Management

Graduate School of Public Health in partial fulfillment

of the requirements for the degree of

Master of Health Administration

University of Pittsburgh

2022

UNIVERSITY OF PITTSBURGH

GRADUATE SCHOOL OF PUBLIC HEALTH

This essay is submitted

by

Rhajni Gooden

on

April 18, 2022

and approved by

Essay Advisor: Mike Evans, MHA, Instructor, Health Policy Management, School of Public Health, University of Pittsburgh

Essay Reader: Daniel Fisher, MHA, Instructor, Department of Rehabilitation Science & Technology, School of Health & Rehabilitation Sciences, University of Pittsburgh

Essay Reader: Mark S. Roberts, MD, MPP, Instructor, Health Policy Management, School of Public Health, University of Pittsburgh

The Impact of Telemedicine on the Future of the Patient Experience

Rhajni Gooden, MHA

University of Pittsburgh, 2022

Abstract

The COVID-19 pandemic was a catalyst that spurred the rapid adoption of telemedicine. Although the technology has been available for generations it is only since the pandemic, has the use of telemedicine become mainstream. The demand for telemedicine was primarily driven by government-imposed mobility restrictions, but even as those restrictions begin to lax there remains a clear patient driven demand for telemedicine services. Patients, providers, and even payers have had the opportunity to experience telemedicine on a grand scale and have come to appreciate the convenience and potential high-quality care that telemedicine offers. In the post-COVID telemedicine reality, providers will need to consider the experience that they are providing their patients in this virtual format. The patient experience is a critical component of measuring the quality of a patient's care. Examining the factors influencing the evolution of telemedicine services and how best to cater to patients' perception of their care is of great public health significance, as it impacts both a provider's clinical and financial outcomes.

Table of Contents

List of Tables

List of Figures

1.0 Introduction

The use of telecommunication technology in medicine has a long and varied history. It was first noted as a strategy for increasing patient volumes and reducing unnecessary physician office visits in an 1879 article in the Lancet (Board on Health Care Services, 2012). Since then both the technology and the concept of remote medical care have evolved. The current term, *Telemedicine,* was first coined in the 1970s by Thomas Bird, from the Latin term telemedicus, meaning healing from a distance (Strehle & Shabde, 2006). The contemporary interpretation of telemedicine, as described by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services defines telehealth as "the use of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health-related education, public health and health administration" (U.S. Department of Health and Human Services, 2022). This is a broad definition of telemedicine. A definition that is more concise and specifically focused on patient interactions is the European Commission's definition of telemedicine which is the "rapid access to shared and remote medical expertise employing telecommunication and information technologies, no matter where the patient or relevant information is located," (Strehle & Shabde, 2006). This definition of telemedicine introduces two complementary strategies for patient care; they live technique, which allows a health professional direct video contact with a patient, and the recorded technique, where information, such as an image, may be stored and transmitted for review by a healthcare professional in a remote location. Both techniques represent the modern industry's capacity to provide care from a distance.

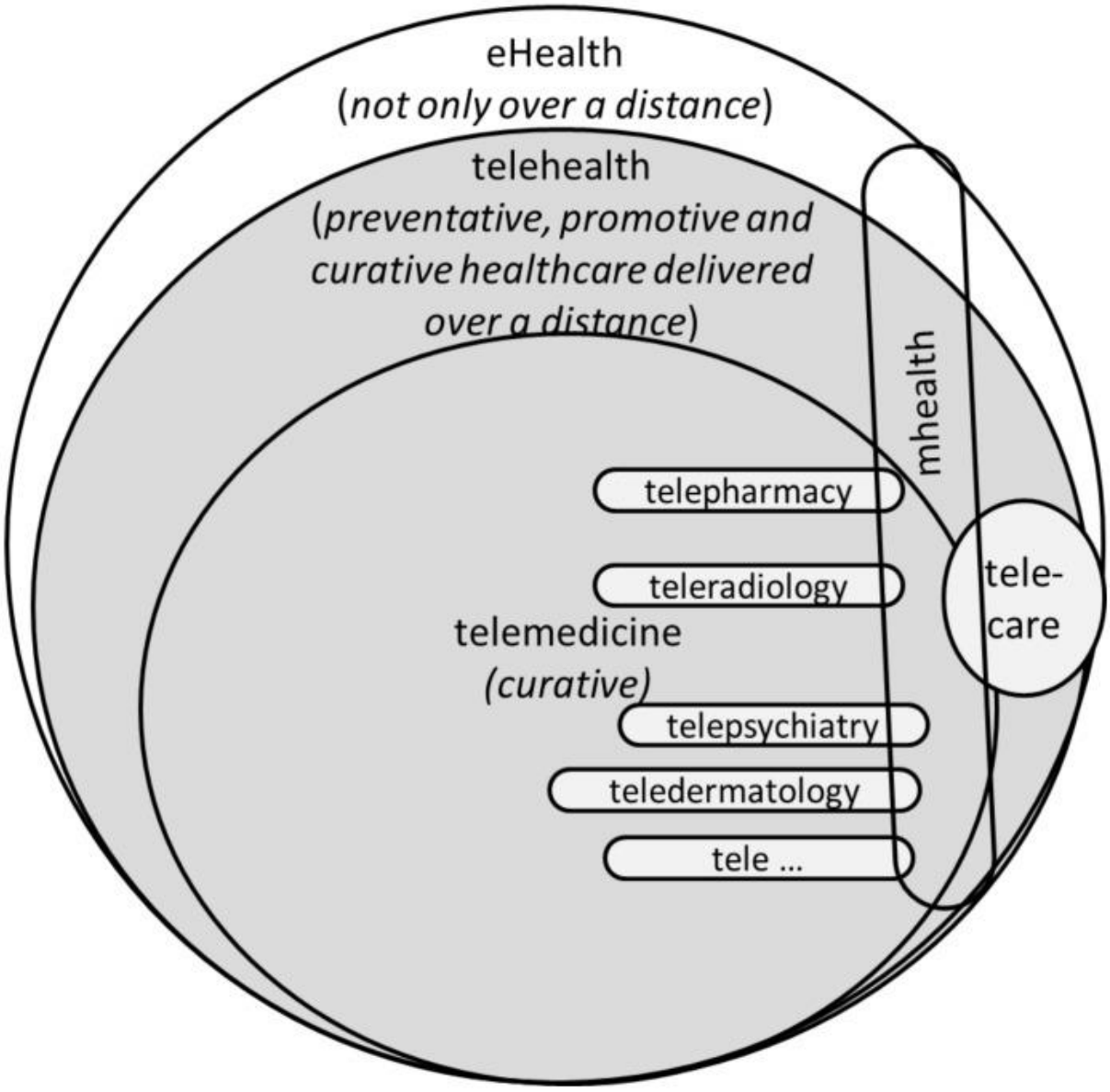


Figure 1: Common Terminology Surrounding Telemedicine (van Dyk, 2014)

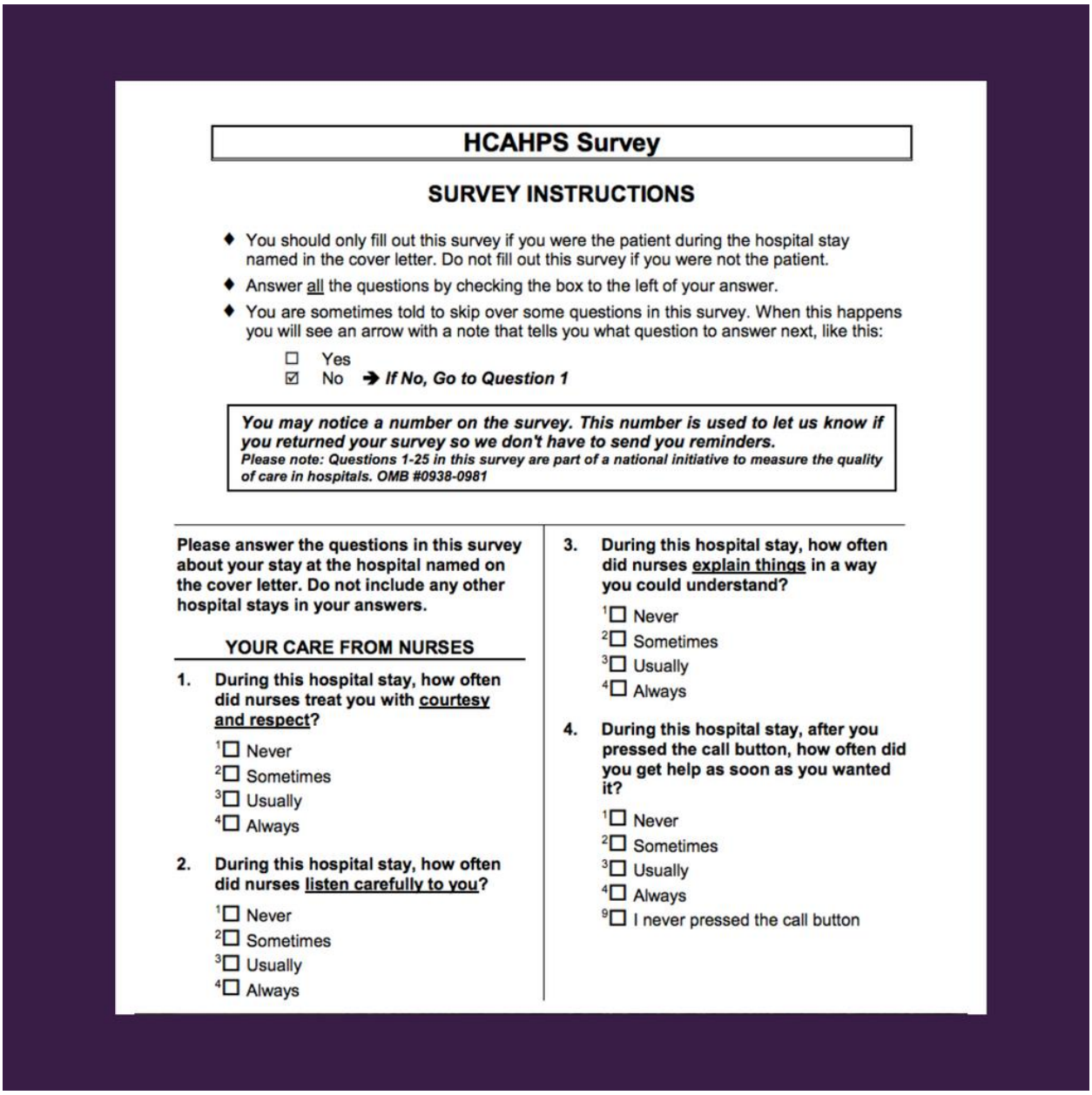
Prior to the emergence of the SARS-CoV-2, more commonly known as coronavirus disease – 19 (COVID-19), the utilization of telemedicine was minimal across all care settings. Between 2012 and 2019, telemedicine visits only accounted for seven out of one thousand patient interactions in urban areas and eleven out of one thousand interactions in rural areas (Chu & et al, 2021). The COVID-19 pandemic forced the healthcare delivery industry to transform how they

provide care and rapidly increase the utilization of telemedicine services (Weigel & et al, Opportunities and Barriers for Telemedicine in the U.S. During the COVID-19 Emergency and Beyond, 2020). The demand for telemedicine was primarily driven by government-imposed mobility restrictions, even as those restrictions begin to lax there is a predicted 250% increase in the demand for telemedicine services even after the COVID-19 pandemic ends as compared to pre-COVID-19 patient demand (Busso, Gonzalez, & Scartascini, 2021). The primary driver for the demand for telemedicine services and a key reason for its inevitable adoption is the convenience and speed of care that it can provide. One study found that 57% of the current patient demand for telemedicine services stems from convenience, 47% from the ability to receive care quickly and only 36% of the patients surveyed sought out telemedicine services out of a desire for safety from the COVID-19 (J.D. Power, 2021).

This now widely adopted method of care delivery and its sudden imposition on the industry has forced hospitals to reimagine the patient care continuum and the overall experience provided. The industry will have to learn what practices lead to the best patient experiences to innovate in this newly emerging patient care setting. Patient experience fits into the overall healthcare picture more today than it ever has. As population health management, accountable care, and healthcare reform mature, the efficacy of those efforts depend more on how well providers can integrate the design of patient experience and empowerment into the expanding care continuum (Luxford & et al, 2014).

2.0 The Value of the Patient Experience

In the late 1980s, the concept of valuing the patient's experience and their perception of care became instrumental in predicting the success of a hospital or care provider. It is important to differentiate between patient experience and patient satisfaction. “In brief, patient experience is associated with a patient's perception of care, while patient satisfaction is about the patient's expectations for care,” (Agency for Healthcare Research and Quality, 2021). The integration of the patient experience into reimbursement models primarily began with the introduction of the Center for Medicare & Medicaid Services (CMS) Consumer Assessment of Healthcare Providers and Systems (CAHPS) health plan survey which has measured the experience of Medicare beneficiaries since 1998. A sample of the survey is found in Figure 2. These scores are publicly available and influence a hospital’s patient population decision-making when choosing both a provider and a hospital for their treatment. The integration of patient experience in reimbursement structures can also be seen in private insurers such as the popular Blue Cross Blue Shield. Private insurers are starting to explore options for “incorporating patient experience scores into provider pay-for-performance incentives,” (Agency for Healthcare Research and Quality, 2021). These forces all contribute to the growing imperative for hospitals and systems to provide an enhanced patient care experience and manage the patient's care through all their interactions with their organization.



HCAHPS Survey

SURVEY INSTRUCTIONS

- You should only fill out this survey if you were the patient during the hospital stay named in the cover letter. Do not fill out this survey if you were not the patient.
- Answer all the questions by checking the box to the left of your answer.
- You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

☐ Yes
☑ No ➔ *If No, Go to Question 1*

You may notice a number on the survey. This number is used to let us know if you returned your survey so we don't have to send you reminders.
Please note: Questions 1-25 in this survey are part of a national initiative to measure the quality of care in hospitals. OMB #0938-0981

Please answer the questions in this survey about your stay at the hospital named on the cover letter. Do not include any other hospital stays in your answers.

YOUR CARE FROM NURSES

1. **During this hospital stay, how often did nurses treat you with courtesy and respect?**
   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

2. **During this hospital stay, how often did nurses listen carefully to you?**
   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

3. **During this hospital stay, how often did nurses explain things in a way you could understand?**
   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

4. **During this hospital stay, after you pressed the call button, how often did you get help as soon as you wanted it?**
   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always
   9 ☐ I never pressed the call button

Figure 2: Sample CAHPS Survey (New England Journal of Medicine Catalyst, 2018)

The patient's perception of care is influenced by a variety of factors in their environment across the patient care continuum. In the modern healthcare environment, the patient experience, their perception of care, has become closely tied to reimbursement, (Kash & McKahan, 2017) and ultimately both clinical and business outcomes. How patients feel about their virtual care

encounters will have a significant impact on everything from patient outcomes to compensation, even beyond the COVID-19 pandemic (Cogan, 2021). Managing and understanding the patient experience in a variety of clinical contexts is imperative to both a hospital's clinical and economic success.

2.1 The Clinical & Business Case for Valuing the Patient Experience

Valuing the patient experience is inherently worthwhile to patients and their families, which is important, in its own right. For the healthcare institutions there are also positive economic and clinical outcomes that are associated with positive patient experiences. Improved patient experience scores have been shown to result in consistently higher levels of patient loyalty. “Improving the patient experience can help a hospital improve its financial performance by strengthening customer loyalty, building reputation and brand, and boosting utilization of hospital services through increased referrals to family and friends,” (Deloitte Center for Health Solutions, 2016). In addition to increasing patient capture, patient experience is also a major predictor of a hospital’s staying power. “Patients with the lowest quality relationships with their providers were found to be 3 times more likely to leave the practice,” (Safran, Montgomery, Chang, Murphy, & Rogers, 2001). Hospitals that prioritize the patient experience are also seen to have improved employee engagement, retention, and satisfaction, reducing turnover and staff burnout (Rave & et al, 2003). Overall, there is a correlation between high patient experience ratings and the financial well-being of a hospital, for every five-point increase in a hospital’s patient experience rating, there is also an associated 1% increase in profit margin (Buhlman & Lee, 2019).

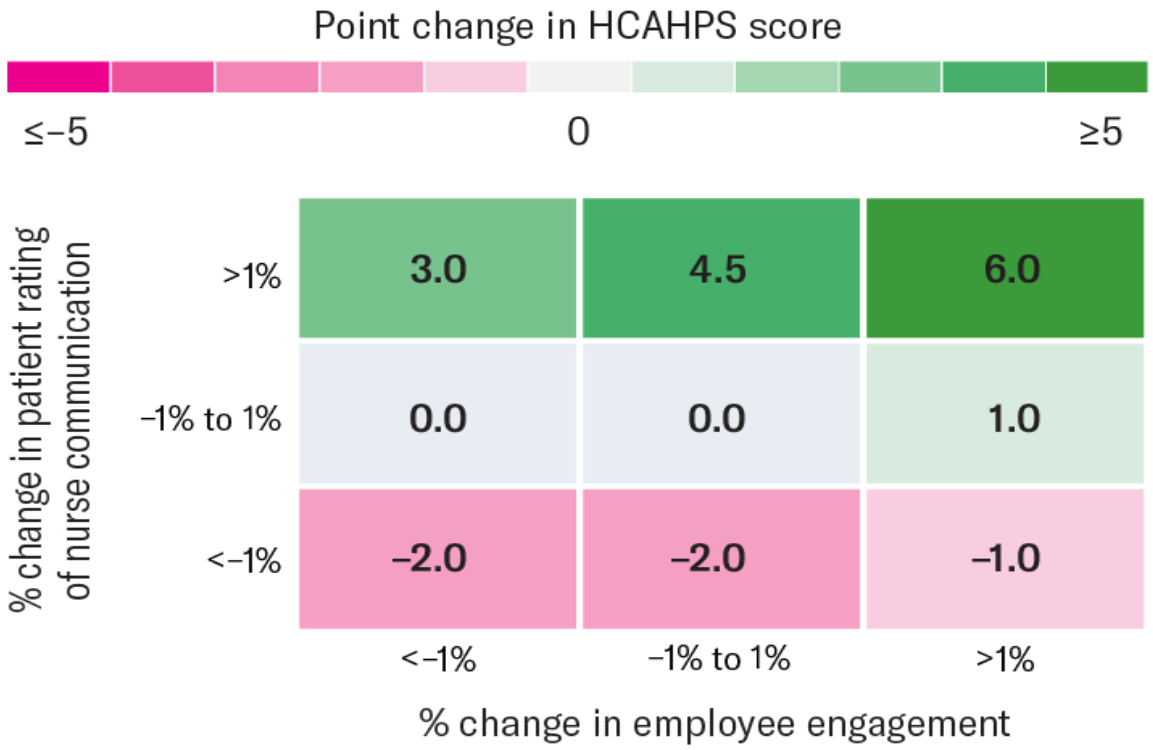


Figure 3: Patient Experience Tools Also Increase Staff Engagement (Deloitte Center for Health Solutions, 2016)

Patient experience is also positively associated with increased clinical effectiveness and patient safety (Doyle & et al, 2012) resulting from a marked increase in patient engagement (Agency for Healthcare Research and Quality, 2021). Increased patient engagement builds a mutually beneficial relationship between the provider and the patient. Having increased patient engagement results in better adherence to care plans and fewer readmissions (Doyle & et al, 2012). Patients also feel more comfortable providing further details of their health barriers when the provider and hospital cater to their human experience (Agency for Healthcare Research and Quality, 2021). This increased openness and dialogue allows providers to better adapt their care plans to the patient and to even address health barriers outside of typical pharmaceutical interventions. Organizations that have strategically adopted patient experience-focused care

models have been able to move away from episodic care approaches to an extended care continuum (Luxford & et al, 2014). This drastically improves patients' health outcomes and long-term wellness.

2.2 Government Support of Telemedicine: Pre and Post Pandemic

Historically, CMS and government policies have generally ignored or limited telemedicine services. This has, in earlier years, stunted the growth of telemedicine services in care delivery and set a negative precedent for commercial payers. The onset of the COVID-19 pandemic forced government policies to shift and support telemedicine. After more than two years of the pandemic, the value of telemedicine services is now being recognized by the government. This has led to incentivization programs to support this new priority in the industry.

To encourage widespread adoption and hospitals to make the necessary investments, the federal government has drastically loosened the restrictions on telemedicine in the Medicare program. Before COVID-19 there were very few CMS codes and guidance for hospitals to use in their billing. For the most part telemedicine services largely went unreimbursed. "Before March 2020, Medicare paid for telemedicine services under limited circumstances, with these services variously restricted to rural or health professional shortage areas, established patients, or certain types of health care providers. In response to the COVID-19 public health emergency (PHE), telemedicine services have been expanded via emergency waiver authority, through rulemaking, and through Congressional action to increase access to care," (Center for Medicare & Medicaid Services, 2021). Although these laxer regulations and policies were an emergency reaction to the pandemic, there is an expectation that CMS will support the expanded use of telemedicine. Exactly

what forms that support will take remains unclear. If the U.S. does sustain this expanded use of telemedicine after the state of emergency ends, the industry will have to consider to what extent low-income patients and patients with limited experience with or access to technology will be able to access these services (Weigel & et al, Opportunities and Barriers for Telemedicine in the U.S. During the COVID-19 Emergency and Beyond, 2020). There will be limitations and some additional regulations, but the value to patients is anticipated to encourage CMS to continue to support telemedicine and drive its adoption and innovation in the industry (Weiner, 2021).

"On a state level, many state governments have focused on expanding telehealth in their Medicaid programs, as well relaxing state-level restrictions around provider licensing, online prescribing and written consent," (Weigel & et al, Opportunities and Barriers for Telemedicine in the U.S. During the COVID-19 Emergency and Beyond, 2020). These relaxed laws have allowed providers to reduce costs and dramatically increase their access. Most states have also mandated private insurers to reimburse telemedicine services equally to in-person care for the same service. This lack payment parity was a large reason for the limited expansion of telemedicine pre-pandemic and is now vital to the success of its continued expansion. Even beyond federal and state regulations, "many commercial insurers have voluntarily addressed telemedicine in their response to COVID-19, focusing on reducing or eliminating cost-sharing, broadening the coverage of telemedicine, and expanding in-network telemedicine providers, (Weigel & et al, Opportunities and Barriers for Telemedicine in the U.S. During the COVID-19 Emergency and Beyond, 2020)"

The pandemic has provided the incentive necessary for providers, payers, and the government to realize the potential of telemedicine. The unprecedented, accelerated expansion of telemedicine, although originally intended as a stopgap emergency response has proven its value to the industry for innovation and quality. "Rightly so, there are concerns "that safety and privacy

may be compromised by rapid deregulation, despite data, although limited, regarding good overall quality," (Shachar & et al, 2020). The industry must maintain the impetus for change and the momentum for telemedicine, the industry will not be able to simply revert to pre-pandemic telemedicine regulations. "Neither can the US simply adopt the recent changes, because they lack the nuance to support clinicians while ensuring safety and privacy for patients," (Shachar & et al, 2020). Ultimately new robust regulations, guidelines, and standards will need to be developed to address reimbursements of payers, patient safety, and quality of care. Even after COVID-19 has become completely endemic and the emergency waivers have ended telemedicine will remain a crucial part of providers' repertoire. The regulations and reimbursement structures may change, but telemedicine is now an undeniable part of healthcare delivery. Hospitals and their leadership must be prepared to develop a new core competency to support their providers as American healthcare continues into this new frontier.

3.0 The New Telemedicine Reality

"Telehealth's big, shining moment will be remembered as 2020 when the pandemic precipitated a massive, unexpected shift in healthcare models," (Cogan, 2021). In response to the COVID-19 pandemic, the use of telehealth services has become an essential part of care delivery. The conversion from in-person care to using telehealth has been incredibly rapid. In less than two years the industry has gone from less than 10% utilization of telehealth pre-covid to 70% at the peak of the pandemic (Bilimoria & et al, 2021). Even as the pandemic begins to become endemic the new reality of telehealth being a well-utilized model of care is expected to continue (Henry, Telehealth is here to stay, but payment is key to future use, 2021). With this new model of care, a new understanding of how to support the patient experience must be developed.

The patient experience has routinely been thought of and curated from the perspective of in-person visits, from the patient interactions in the hospital to the décor. All of these factors have been carefully selected to cater to patient satisfaction and intentionally build a positive perception of the hospital and staff in the mind of the patient. This is achieved through training staff, targeted internal marketing, process design, art, architecture, or communication training. One tool often used by hospitals, is A.I.D.E.T. A.I.D.E.T stands for five communication behaviors, listed in Table 2, that are statistically shown to improve a patient's perception of their care, regardless of the clinical outcomes from their provider (Studor Group, 2019). There is also research that suggests that hospitals that invest in specific styles of architecture or interior design have seen improved patient experience scores due to the atmosphere created (Marshall, 2018).

Since the changes made by CMS in the 90s and early 2000s to encourage hospitals to see the patient experience as a quality measure tied to reimbursement, there has been tremendous

research and development in how to improve the patient experience (Agency for Healthcare Research and Quality, 2021). The research and investments by the industry have focused almost exclusively on the patient experience in a physical person context. This was acceptable in the past when telehealth contributed to a very small minority of patient interactions. Of that small portion of patient interactions even fewer were exclusively virtual. The pandemic created a reality where telemedicine quickly rose in usage and acceptance. This new care model does not have the same long-lived research or well-established best practices as can be found when addressing in-person patient interactions (Marshall, 2018). Even as the healthcare industry remakes itself, the importance of managing the patient experience remains. Hospitals have found themselves at the forefront of a new age in care delivery requiring new tools and core competencies to continue to maintain a high patient experience.

Table 1: A.I.D.E.T Behaviors

A.I.D.E.T Abbreviations	Behaviors
Acknowledge	Greeting the patient by name, with eye contact and a smile. Acknowledge any family or friends in the room
Introduce	Introduce yourself with your name, skill set, profession, and experience
Duration	Provide an accurate time expectation for tests, team arrival, and next steps, when possible.
Explanation	Explain step-by-step with non-industry jargon on what the patient should expect, answer questions, and let the patient know how to contact you.

Thank You	Thank the patient and family. Express gratitude for their choice in hospital. Thank the family or friends for supporting the patient.

3.1 Barriers to Improving the Telehealth Patient Experience

The rapid emergence of telemedicine throughout the COVID-19 pandemic led to the high utilization of virtual services across all demographic groups. Over the same period, there has been a notable decrease in overall patient satisfaction and experience (J.D. Power, 2021) These negative experiences are not evenly distributed across patient demographic groups. Higher-risk patients who typically need higher levels of care are routinely reporting worse patient experiences since using telemedicine services. "Overall satisfaction is eighty-five points lower (on a 1,000-point scale) among patients with the lowest self-reported health status than among patients who consider themselves to be in excellent health. Similarly, healthier patients are more likely than less healthy patients to understand the information provided during the visit; say they receive clear explanations; perceive that their visits are highly personalized; and obtain high-quality diagnoses," (J.D. Power, 2021). The newness of the services is a major barrier to maintaining positive patient experiences, especially for patients that report their health to be poor, requiring greater attention and care.

This distinction between patient populations and their experiences persists even as telemedicine is shown to provide similar patient outcomes to in-person care (Doyle & et al, 2012). The patient's experience is driven by their perception and that perception of care must be managed. Even with similar outcomes, patients seen virtually seem to uniquely require a level of assurance

that their provider is as invested in their care as if they came into the office physically. Often patients who leave their virtual visit with a comprehensive and detailed action plan or prescription rate their virtual care higher than patients without (Martinez, Rood, & et al, 2018). This trend does not appear when patients visit a provider's office physically (Doyle & et al, 2012). Even as patients demand telemedicine services, they require assurances that their care is not being limited by the less formal model. The reassurance of the familiar office setting coupled with the well-practiced steps of a doctor's visit provides a sense of security and trust in patients, which will need to be regained in the virtual setting to support the patient experience. The patients' demand for the services will not be enough to maintain a positive perception of their care.

Another barrier to providing a successful patient experience to all patients in the virtual setting is the lack of broad access to the necessary technology. Almost 7% of Americans live in areas without access to broadband or high-speed internet services (Federal Communication Commission, 2022). This lack of access is primarily concentrated in rural areas, where the low population density makes it cost-prohibitive for commercial broadband providers to install the necessary infrastructure. There are programs sponsored by the government to rectify this digital divide, but the installation of the necessary infrastructure will be slow (Federal Communication Commission, 2022). Even in urban areas that typically have the infrastructure for high-speed internet, there is a substantial portion of the population that does not have reliable access to the internet. This is irrespective of whether their community has the necessary infrastructure to provide the internet. Inaccurate internet coverage maps make it difficult to know precisely how many urban homes are without internet, but Census Bureau surveys found that there are three times as many households in urban areas disconnected from high-speed internet than in rural areas (Levin & Downes, 2019). This is despite living in areas where the commercial resources to provide the

service are available. Patients from these disconnected regions tend to be high care utilizers due to socioeconomic factors and negative social health determinants. These high service utilizers, arguably, stand to benefit the most from convenient and rapid access to patient care. Nonetheless, they do not have the technology, funds, digital literacy, or at times even the desire to participate in the "internet society," (Levin & Downes, 2019).

Table 2: Physician Reported Barriers to Patients Accessing Telemedicine Services (Drees, 2020)

Barriers	Percent of Survey Responses
Lack of access to technology	70%
Lack of digital literacy	61%
Lack of access to broadband	58%
Preference for an in-person visit	55%
Lack of access to data	36%
Lack of awareness of telehealth offerings	36%
Lack of awareness of insurance coverage for telehealth	34%
Lack of any health insurance	25%
All the above	9%
Other	3%
Unknown barriers	3%

3.2 Best Practices

Although the industry is still relatively in its infancy in its widespread use of telehealth, several best practices have been found to be effective throughout the pandemic. These best practices emerged specifically in 'at home' telehealth formats, when patients attend appointments virtually, from their home, instead of in a formal hospital or healthcare facility. This new type of care delivery is often known as direct-to-patient, direct-to-consumer, or on-demand care (Health Resources & Services Administartion, 2022). The primary driver of patient experience in the telehealth setting is how the provider and their team coordinate their workflow (J.D. Power, 2021). The patient's experience is primarily impacted by the office's ability to coordinate their pre-visit, the visit itself, and any post-visit follow-ups (Health Resources & Services Administartion, 2022). This has meant developing virtual waiting rooms, using auto technologies or staff to electronically send the paperwork that may have previously been completed in the office, or even educating patients on how the visit may differ from their typical office visit (American Hospital Association, 2020). This reevaluation and digitalization of the office visit have required care providers to reimagine the patient visit and develop strategies to make it as seamless as possible. Providers have invested heavily in retooling this process, but the innovations and best practices to make the experience as seamless as in-person visits are still being developed.

Offices must also consider how they develop these workflows to best maximize the productivity of their staff. As the pandemic becomes increasingly endemic and some return to in-office visits, telehealth visits remain a very well-used service (Lo & et al, 2022). Front line leaders have had to develop new strategies and tools to best allow dual workflows in their clinics. These strategies and tools have had to determine how best to serve and maintain the experience of those in the office as well as those visiting the office virtually. The office visit has had generations to be

reconfigured and improved upon. For hospitals and their teams to meet demand, they will need to develop this new competency much more rapidly.

4.0 Case Study: Kaiser Permanente's Model of Excellence

Several organizations have managed to excel in the new telemedicine environment but Kaiser Permanente, commonly just referred to as Kaiser, has uniquely innovated its telemedicine systems to support their patients' experiences. Founded in 1945, Kaiser Permanente is recognized as one of America's leading health care providers and nonprofit health plans. The system serves 12.5 million members across eight states and the District of Columbia (Kaiser Permanente, 2022). Their excellence in care is nationally recognized. Kaiser is uniquely positioned to improve and innovate to meet their patient expectations and support positive experiences. Kaiser is a completely integrated closed network insurance company and medical care delivery group. Kaiser is routinely recognized as a national leader in Patient Experience. The National Committee for Quality Assurance has rated six of Kaiser's health plans with the rare maximum score of 5 stars and none of their plans has received less than four stars. Less than 2% of the 1,000 plans rated, including Medicare and Medicaid, received a five-star rating in 2021 (Kaiser Permanente, 2022).

4.1 Kaiser's Approach to the Patient Experience

Most hospitals do try, to varying degrees, to consider and invest in their patient experience but Kaiser routinely excels at this. Even before the pandemic and outside of the telemedicine encounters Kaiser's culture centers around the patient experience. The organization has dedicated multiple practices as locations to experiment with different patient experience-enhancing tactics. This stretches from the check-in process to even the aesthetics of the waiting room. This is even

further exemplified in the changes they have made to the physical exam room. Kaiser's Chairman and CEO Bernard J. Tyson commented the rooms now have "leather chair[s] slap bang in the middle of the room, where everything quite literally revolves around the patient. These chairs are indeed a far cry from the standard, paper-covered tables – upon which patients are required to perch awkwardly and even embarrassedly during examination – that have been the mainstay of hospitals historically. But at Kaiser health hubs, patients can now sit eye-to-eye with their physician, who can use a wall-mounted touchscreen to summon lab results, X-rays, and video consultations with specialists. The docs can even send prescriptions to the on-site pharmacies using a tablet," illustrated in Figure 3 (Kaiser Permanente, 2021). Kaiser's dedicated test practices act as laboratories for a design-driven approach to medicine, putting patient experience at the very center of all activities. Kaiser also takes cues from other industries and the elements that they use to influence their customer experience. This innovative patient-centered approach has led to various innovations, designs, and workflow initiatives all fine-tuned in these testing locations before rolling out across the system, (Kaiser Permanente, 2022). Kaiser also launched the Care Management Institute to collect data, best practices, and expertise to continually improve the patient's care and experience. The institute is dedicated to using analytics to examine trends across the system. This allows for a centralized, intentional, and data-driven approach to the patient experience (Kaiser Permanente, Care Management Insitute, 2022).

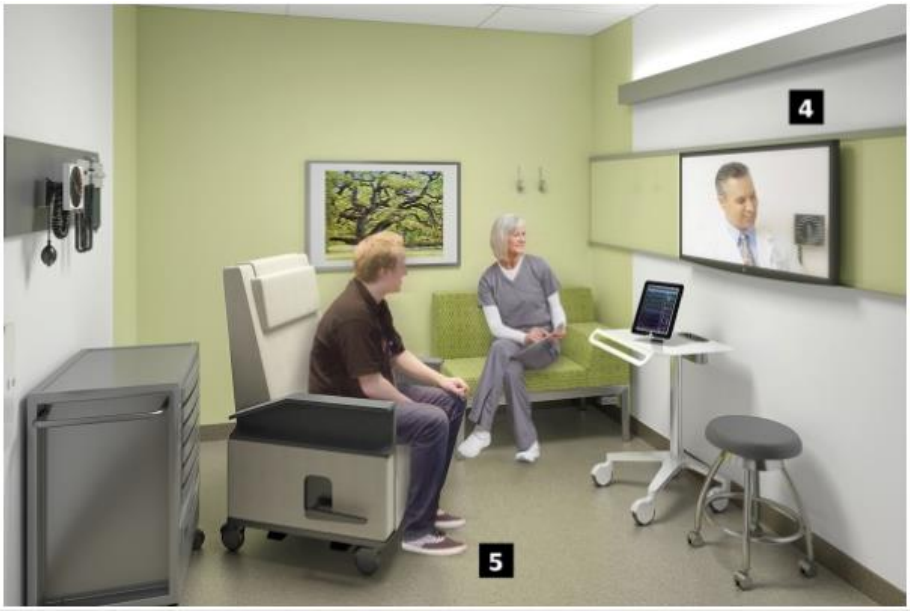


Figure 4: Kaiser's Exam Room Design (Kaiser Permanente, 2021)

4.2 Kaiser's Approach to Telemedicine

Utilizing telemedicine to advance patient care and experience has long been a part of Kaiser's ethos, even before the pandemic. Kaiser often serves as a trend leader in the industry, willing to risk trying new methods and take advantage of new technologies. Kaiser launched their patient-facing app in 2011, providing patients with a mobile integrated personal health record optimized for mobile devices. In 2008, Kaiser was one of the first organizations to pilot text reminders for patient appointments (Doulan, 2011). These were early precursors to a wide array of mobile applications dedicated to patient convenience and enhancing care coordination. In today's modern practice, these are mundane initiatives but, in the early 2000s, these were considered novel and unique approaches to connecting with patients; the first instances of telemedicine in the modern era.

In more recent years, Kaiser has developed a host of telemedicine offerings to serve their patients. The options are elegantly designed to support patients with varying degrees of need and digital literacy. Several of their options are available across multiple device platforms and points of contact. These resources range from the now quintessential video appointment with a provider to the 24/7 virtual urgent care (Kaiser Permanente, 2022). Kaiser also offers the asynchronous 'E-Visit' where a patient can fill out a short questionnaire to receive immediate self-care advice with a follow-up from a clinician in a few hours. To support those with less health literacy or no access to high-speed connected video devices a 24/7 call line (Kaiser Permanente, 2022). This phone-based service offers patients a resource to connect with clinicians immediately at any time by phone offering both health advice and support to get further care. Several of these services were available before the pandemic putting Kaiser ahead of their peers when the pandemic came.

A large part of Kaiser's success is the organization now reaping the benefits of early adoption, innovation, and investment into telemedicine. In contrast to other organizations, Kaiser has developed their service platforms rather than relying on third-party or newly built systems. This has allowed them to leap further ahead in what they can offer patients and utilize their findings to tweak and adapt to patient preferences. This not only allows them to meet the expectations of patients but to manage their perception of care – their experience. Kaiser's integration of telemedicine into their care delivery has allowed telemedicine to become a seamless part of the patient's care continuum rather than simply a stop-gap emergency response to the pandemic as with other systems.

5.0 Conclusion & Recommendations

The COVID-19 pandemic acted as a catalyst that finally encouraged the use and expansion of telemedicine. Although the concept of using telecommunication methods to deliver care was first introduced generations ago, it took the pandemic to bring it into the modern lexicon and practice. Patients, providers, and even payers have had the opportunity to experience telemedicine on a grand scale and have come to appreciate the convenience and quality care that telemedicine offers. As health systems invest in their telemedicine services, providers will need to consider the experience that they are providing their patients in this new virtual format. The patient experience has become a critical component of measuring the quality of a patient's care. As payers, both commercial and government-based, move away from the traditional fee-for-service to a value-based payment structure, the importance of the patient experience will continue to grow. This presents a challenge to systems, as they have had decades to learn and adjust their in-person care strategies to enhance and improve the patient experience. This is not the case with the rapidly expanding telemedicine services which as the demand for grows, will not offer providers the same grace period.

This new virtual care environment will force providers to reconsider their approach to care delivery and how it is perceived by patients. To positively drive the patient experience providers will have to discover and cater to the new perceptions and expectations that patients will have in through telemedical means. The newness of telemedicine encounters offers industry leaders few best practices but what has been found so far caters around: caring for the patient as a continuum rather than episodically, creating seamless workflows to ensure the patients' convenience, and providing multiple avenues for the patient to receive and control their care. These practices provide

an early framework for what systems will need to meet the demand for telemedicine and better experiences. Kaiser Permanente offers an outlook on what excellent patient-centered virtual care may look like offer an example. Their innovation and investments into virtual care highlight their system as a leader in virtual care delivery – even before the pandemic. As the pandemic begins to wane, a new and persistent challenge remains for providers, to meet the demand for telemedicine while building the necessary strategies to understand and cater to patients' perceptions to enhance their overall personal healthcare experience.

Bibliography

Agency for Healthcare Research and Quality. (2021, June). *What is Patient Experience?* Retrieved January 2022, from Agency for Healthcare Research and Quality: https://www.ahrq.gov/cahps/about-cahps/patient-experience/index.html

American Hospital Association. (2020, May). *Telehealth and Virtual Care Best Practices.* Retrieved March 2022, from AHA.

Bilimoria, K. Y., & et al. (2021, August). Comparison of Patient Experience with Telehealth vs. In-Person Visits Before and During the COVID-19 Pandemic. *The Joint Commission Journal on Quality & Patient Safety, 47*(8), 533-536. Retrieved March 2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7844377/

Board on Health Care Services. (2012, November 20). The Role of Telehealth in an Evolving Health Care Environment: Workshop Summary. DC, Washington, United States of America: National Academic Press. Retrieved January 2022, from https://www.ncbi.nlm.nih.gov/books/NBK207141/

Buhlman, N., & Lee, T. (2019, May 08). When Patient Experience and Employee Engagement Both Improve, Hospitals' Ratings and Profits Climb. *Harvard Business Review*. Retrieved 09 2022, March, from https://hbr.org/2019/05/when-patient-experience-and-employee-engagement-both-improve-hospitals-ratings-and-profits-climb

Busso, M., Gonzalez, M., & Scartascini, C. (2021). *On the Demand for Telemedicine.* Inter-American Development Bank. Retrieved January 2022, from https://publications.iadb.org/publications/english/document/On-the-Demand-for-Telemedicine-Evidence-from-the-Covid-19-Pandemic.pdf

Center for Medicare & Medicaid Services. (2021, December). *Medicare Telemedicine Snapshot – December 2021 FAQ's.* Retrieved March 2022, from https://www.cms.gov/files/document/medicare-telemedicine-snapshot-faqs.pdf

Chu, C., & et al. (2021, April). Rural Telemedicine Use Before and During the COVID-19 Pandemic: Repeated Cross-sectional Study. *Journal of Medical Internet Research.* doi:10.2196/26960

Cogan, S. (2021, March 21). Why 2021 Patient Experience Will be Tied to Telehealth Success. *Managed Healthcare Executive*. Retrieved March 2022, from https://www.managedhealthcareexecutive.com/view/why-2021-patient-experience-will-be-tied-to-telehealth-success

Deloitte Center for Health Solutions. (2016). *The Value of Patient Experience.* Retrieved March 2022, from https://www2.deloitte.com/content/dam/Deloitte/us/Documents/life-sciences-health-care/us-dchs-the-value-of-patient-experience.pdf

Doulan, B. (2011, July). Kaiser Permanente launches first iPhone app. *MobiHealth News*. Retrieved March 2022, from https://www.mobihealthnews.com/12120/kaiser-permanente-launches-first-iphone-app

Doyle, C., & et al. (2012). A systematic review of evidence on the links between patient experience and clincial safety and effectiveness. *British Medical Journal Open*. Retrieved March 2022, from https://bmjopen.bmj.com/content/bmjopen/3/1/e001570.full.pdf

Drees, J. (2020, November 18). *9 barriers for patients accessing telehealth*. Retrieved March 2022, from Becker's Hospital Review: https://www.beckershospitalreview.com/telehealth/9-barriers-for-patients-accessing-telehealth.html

Federal Communication Commission. (2022). *Eighth Broadband Progress Report.* Retrieved March 2022, from Eighth Broadband Progress Report: https://www.fcc.gov/reports-research/reports/broadband-progress-reports/eighth-broadband-progress-report#:~:text=Notwithstanding%20this%20progress%2C%20the%20Report,lack%20access%20to%20this%20service.

Health Resources & Services Administartion. (2022). *Telehealth for direct-to-consumer care*. Retrieved 2022, from Introduction to direct-to-consumer telehealth: https://telehealth.hhs.gov/providers/direct-to-consumer/

Henry, T. (2021, November 8). Telehealth is here to stay, but payment is key to future use. *American Medical Association*. Retrieved January 2022, from https://www.ama-assn.org/practice-management/digital/telehealth-here-stay-payment-key-future-use

J.D. Power. (2021, September). Telehealth Usage Surging but Service Issues and Barriers to Access Strain Patient Experience, J.D. Power Finds. Retrieved March 2022, from https://www.jdpower.com/business/press-releases/2021-us-telehealth-satisfaction-study

Kaiser Permanente. (2021). How Kaiser Permanente Is Using 'Health Hubs' to Test Patient Experience Innovation. *Next Generation Patient Experience.* Retrieved March 2022, from https://patientexperience.wbresearch.com/blog/kaiser-permanente-using-health-hubs-to-test-patient-experience-innovation

Kaiser Permanente. (2022). *About.* Retrieved March 2022, from https://about.kaiserpermanente.org/our-story/news/accolades-and-awards/high-quality-care-is-what-we-provide#:~:text=Kaiser%20Permanente%20is%20recognized%20among,none%20lower%20than%204%20stars.

Kaiser Permanente. (2022). *Telehealth is easy — here's how it works*. Retrieved March 2022, from https://healthy.kaiserpermanente.org/oregon-washington/learn/how-to-use-telehealth

Kaiser Permanente, Care Management Insitute. (2022). *Patient-Centered Improvement*. Retrieved March 2022, from Our Approach: https://kpcmi.org/what-we-do/strategic-execution/

Kash, B., & McKahan, M. (2017). The Evolution of Measuring Patient Satisfaction. *Journal of Primary Health Care and General Practice*. Retrieved January 2022, from https://scientonline.org/open-access/the-evolution-of-measuring-patient-satisfaction.pdf

Levin, B., & Downes, L. (2019). Cities, not rural areas, are the real Internet deserts. *The Washington Post*. Retrieved March 2022, from https://www.washingtonpost.com/technology/2019/09/13/cities-not-rural-areas-are-real-internet-deserts/

Lo, J., & et al. (2022, February). *Access & Affordability*. Retrieved March 2022, from Peterson Center on Healthcare and KFF Health Systems Tracker: https://www.healthsystemtracker.org/brief/outpatient-telehealth-use-soared-early-in-the-covid-19-pandemic-but-has-since-receded/

Luxford, K., & et al. (2014). How does patient experience fit into the overall healthcare picture? *Patient Experience Journal, 1*(1). Retrieved March 2022, from https://pxjournal.org/cgi/viewcontent.cgi?article=1002&context=journal

Marshall, L. (2018). *Healthcare Environement Design and Patient Experience.* Cantebury: Canterbury Christ Church University. Retrieved March 2022, from https://www.proquest.com/openview/58c7f0a4e36a9d12ab36ea0a7c2dd0be/1?pq-origsite=gscholar&cbl=51922&diss=y

Martinez, K., Rood, M., & et al. (2018, August). Patterns of Use and Correlates of Patient Satisfaction with a Large Nationwide Direct to Consumer Telemedicine Service. *Journal of General Internal Medicine, 33*, 1768-1773. Retrieved March 2022

New England Journal of Medicine Catalyst. (2018, January 1). Patient Satisfaction Surveys. *New England Journal of Medicine Catalyst*. Retrieved March 2022

Rave, N., & et al. (2003). Radical systems change. Innovative strategies to improve patient satisfaction. *Journal of Ambulatory Care Management*, 159-174. Retrieved January 2022, from https://pubmed.ncbi.nlm.nih.gov/12698930/

Safran, D. G., Montgomery, J. E., Chang, H., Murphy, J., & Rogers, W. H. (2001). Switching doctors: predictors of voluntary disenrollment from a primary physician's practice. *Journal of Family Practice*, 130-136. Retrieved February 2022, from https://pubmed.ncbi.nlm.nih.gov/11219560/

Shachar, C., & et al. (2020, May). Implications for Telehealth in a Postpandemic Future. *Journal of American Medical Association*. doi:10.1001/jama.2020.7943

Strehle, E. M., & Shabde, N. (2006). One hundred years of telemedicine: does this new technology have a place in paediatrics? *Archives of Disease in Childhood, 91*(12), 956-959. doi:10.1136/adc.2006.099622

Studor Group. (2019). *AIDET PATIENT COMMUNICATION.* Retrieved March 2022, from https://www.studergroup.com/aidet#:~:text=The%20acronym%20AIDET%C2%AE%20stands,%2C%20Explanation%2C%20and%20Thank%20You.

U.S. Department of Health and Human Services. (2022). *Health IT*. Retrieved Jan 2022, from Telemedicine and Telehealth: https://www.healthit.gov/topic/health-it-health-care-settings/telemedicine-and-telehealth

van Dyk, L. (2014, January). A review of telehealth service implementation frameworks. *International Journal of Evironemntal Research in Public Health*, 1279-98. doi:10.3390/ijerph110201279.

Weigel, G., & et al. (2020, May 11). *Opportunities and Barriers for Telemedicine in the U.S. During the COVID-19 Emergency and Beyond*. Retrieved February 2022, from Kaiser Family Foundation: https://www.kff.org/womens-health-policy/issue-brief/opportunities-and-barriers-for-telemedicine-in-the-u-s-during-the-covid-19-emergency-and-beyond/

Weigel, G., & et al. (2020). *Opportunities and Barriers for Telemedicine in the U.S. During the COVID-19 Emergency and Beyond.* Kaiser Family Foundation. Retrieved March 2022, from https://www.kff.org/womens-health-policy/issue-brief/opportunities-and-barriers-for-telemedicine-in-the-u-s-during-the-covid-19-emergency-and-beyond/

Weiner, S. (2021, December 21). *Association of American Medical Colleges*. Retrieved March 2022, from https://www.aamc.org/news-insights/what-happens-telemedicine-after-covid-19