

Telehealth in Physical Therapy

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Abstract

Review Article

This article is a literature review of Telehealth in Physical Therapy. It discusses the growing role of Telehealth in Physical Therapy practices like evaluation, exercise instruction, and progress monitoring. The multiple advantages of telehealth like cost-effectiveness, accessibility, continued care, time efficiency, patient satisfaction and similar outcome as conventional therapy are discussed in detail. It also cites the disadvantages of using Telehealth like legal issues, licensure regulation, cyber security, insurance coverage and lack of hands-on therapy. Finally, the article discusses the future of telehealth, highlighting new technologies like robotics, virtual and augmented reality that may overcome the current limitations and help integrate telerehabilitation into mainstream physical therapy.

Keywords: COVID-19, Telehealth, Physical therapy, AI.

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INTRODUCTION

Telehealth is the delivery of healthcare services remotely via technology. The COVID-19 pandemic has catapulted us into the digital age. With the availability of smartphones and smart apps in every household, it has become easier than ever to get healthcare at the tip of our fingers. In this article we will review research articles on telehealth and discuss how it can be put to use widely in the field of Physical Therapy.

Application of Telehealth in PT.

1. **Evaluation and Assessment:** A licensed Physical Therapist can assess a patient remotely using a smartphone or a computer via a 2 way video call with the patient. A video assessment can be beneficial as a PT can evaluate the patient's surroundings and environment. This can help assess environmental factors which might be contributing to the patient's discomfort. For instance, the therapist can help set up an ergonomically savvy work from home environment.
2. **Exercise instruction and supervision:** With telehealth, a patient can follow exercises after demonstration from the PT along with supervision and corrections.
3. **Progress monitoring:** Telehealth can be used in monitoring patients' progress or decline and add adjustments to the plan of care accordingly.

Advantages:

1. **Cost effective:** Using one's own smart device to get in touch with a Physical Therapist is an efficient and cost effective way of getting health services. It can save costs in transportation and parking.
2. **Accessibility:** A licensed clinician can be accessible to multiple patients in a day regardless of their geographical location.
3. **Patient satisfaction:** Studies conducted during the COVID-19 pandemic showed improved patient satisfaction using Telehealth PT [1].
4. **Similar outcomes:** Studies comparing Outpatient PT and Internet Based Telerehabilitation for post surgical total knee arthroplasty showed comparable outcomes [2].
5. **Continued care:** Telerehabilitation has proven to be an effective and feasible option for continuing care. During the pandemic, Telehealth was a good tool for many patients. It helped retain their functional levels when an in person PT was unavailable or not accessible [3].
6. **Preventing Infections:** For patients who are immunocompromised, Telehealth PT can be a safer option to avoid exposure to unnecessary pathogens.
7. **Time efficiency:** Telerehabilitation can also significantly reduce travel time benefitting both patients and therapists.

Limitations:

1. **Hands on assessment and therapy:** One of the major setbacks of using Telehealth rehabilitation

would be the lack of physical contact with the patient. This can limit an ideal assessment by not being able to objectively measure patients' strength, joint play and injuries. Certain treatment techniques like manual therapy, taping, dry needling, etc would also be limited with Telerehabilitation.

2. **Legal issues:** Although telehealth was widely used effectively during the COVID-19 pandemic [3], lately the rules for telehealth have been emerging and evolving and can vary from state to state. This can lead to increased potential for legal and liability issues [4].
3. **Licensing regulations:** Every country has different license requirements for PT practices. In the USA, each state follows different guidelines and laws under which PTs can practice. Providing remote PT can question the geographic location of the providing therapist which can make it difficult to regulate the law and licensure.
4. **Insurance coverage:** Health insurance coverage varies from state to state and insurance to insurance. Coverage for telehealth is not consistent all over the US [5].
5. **Cyber security and privacy:** Telehealth uses smart devices as a means of exchanging sensitive visual and auditory data. If it is not protected it can lead to serious breach of private patient data and HIPPA violations [6].

CONCLUSION

After discussing various advantages and limitations of Telehealth PT, it is clear that Telehealth PT can be a very effective and an efficient way of providing Physical Therapy remotely. Physical Therapy is a dynamic field and evolving with the growing digitization is imperative. Telerehabilitation has its own limitations but with new technologies and innovations, it is possible to find a resolution.

As we have evolved from using paper currency to online wallets, physical banking to digital banking, the world of Physical Therapy can also evolve in a similar fashion. It is important to look at regulating healthcare records and digital data. Projects to mitigate cyber crime risk in Telehealth are already underway [6].

The other limitation mentioned above regarding hands on therapy can be alleviated with new advances in robotics. Delivering tele assessments and treatments using robotics for tactile feedback in telehealth are being studied [7].

Virtual and Augmented reality has gained popularity in the gaming industry in recent years. These technologies can also be applied to Telerehabilitation making it more enjoyable and personalized for each patient which will lead to better outcomes.

As the healthcare landscape continues to evolve, Telehealth PT will likely be an integral part of rehabilitation, giving patients more choices and control over their health.

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