DESIGN CONNECTIONS IN THE TELEMEDICINE ENVIRONMENT

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INTRODUCTION

Design of the physical and virtual environment is essential when providing healthcare. As the world moves from traditional clinical practice towards the relatively new telemedicine platform, greater emphasis is placed on the environment. The successful implementation of telemedicine services is directly affected by several physical and virtual characteristics present in both the clinician and patient environments. When communicating virtually, characteristics including Wi-Fi, internet, lighting, sound, and system structure have a substantial impact on the type of care received by a patient.

The topic of our summer research was directed towards the differences between the physical and virtual work environments of tele-behavioral health counselors. Through the duration of this research, various environmental characteristics were examined in order to define their boundaries. The following research question was developed to conduct this research study. **How do physical environment characteristics influence telemedicine delivery?**

Abrams, E. (2019). [Digital image]. Retrieved 2020, from https://www.bartonassociates.com/blog/considering-telemedicine

OBJECTIVE

To determine which environmental characteristics have the greatest impact on the promotion of a productive telemedicine session.

METHOD

A literature review was conducted in order to evaluate the existing evidence pertinent to the field of telemedicine and the significance of the environment in this particular field. Relevant reference articles were collected from EndNote and Google Scholar. These articles were then analyzed and placed into applicable categories. These categories include articles relating to telemedicine practice that are peer-reviewed and opinion papers, as well as articles relating to telemedicine training that are peer-reviewed and opinion papers.

RESULTS

A total of forty relevant articles were identified. Many of these articles found the virtual environment to have profound affects on the delivery of telemedicine. Security and data privacy are the most notable aspects involved in the transition of clinical practices to a virtual setting. Therefore, telemedicine practices must take into account how personal data will be shared between clinician and patient, as well as, among other clinicians. In order to facilitate this additional level of virtual security, several medical practices use a specific platform or network that allows for the preservation of private data.[1,2]

A few articles also discussed the importance of the physical environment. Aspects that had the most influence on telemedicine delivery included physical location and layout of the room, speaker and microphone capabilities, avoidance of clutter, color of room, and visibility of involved individuals.[3,4]

Additionally, it is apparent that moving from a society based predominantly on traditional clinical practice to one focused on a virtual environmental setting creates a diminished physical presence. This results in the necessity of the clinician to enhance the validity of remote psychological assessments. In other words, moving to virtual care creates a disconnect between the patient and the clinician. In order for patients to feel as if they are truly receiving the best care, clinicians must take methodical measures when establishing rapport. The most notable of these measures include clear observation through the use of nonverbal communication, creating a plan that allows for a routine to be established, and continuous monitoring of both the connection quality and the emotions expressed by the patient to ensure that they are fully aware of what is occurring during their session. Clinicians are also responsible for maintaining healthy and open communication to create a therapeutic environment with unconditional positive regard. Close observation and assurance from the clinician during telemedical assessments and care (or treatments) can help to sustain a non-judgmental patient-provider relationship.

Rheuban, K., Shanahan, C., & Willson, K. (2014). [Digital image]. Retrieved 2020, from https://journalofethics.ama-assn.org/article/telemedicine-innovation-has-outpaced-policy/2014-12

CONCLUSIONS

The successful delivery of telemedicine relies heavily on the physical and virtual environments. New issues arise when transitioning from traditional clinical practice to telemedicine, such as privacy and security. Although further research should be conducted in order to determine which physical or virtual characteristics have a greater impact on the successful implementation of a telemedicine session.

S. (n.d.). [Digital image]. Retrieved August 30, 2020, from https://www.steelcase.com/research/articles/topics/healthcare/effective-webside-manner-what-does-it-take/

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