Mental Health Outcomes: A Comparison Study of Home-Based Telehealth versus Traditional Home Health Services

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Conducted a prospective pilot study to compare mental health outcomes among stroke patients, randomized to receive either Telephone Delivered Behavior Therapy (TDBT) or home-based (HFB) services following inpatient rehabilitation discharge. We tested the hypothesis that pre- and post scores from the Beck Depression Inventory (BDI) and Mental Component Summary (MCS) Scale from the Short FROM-12 would not be significantly different between treatment groups. Sixteen patients were randomized to one of two groups: twelve patients were randomized to receive TDBT and four patients were randomized to receive HFB. The groups did not differ with respect to key demographic factors. The mean BDI score of 21.9 for HFB and 20.9 for TDBT was not significantly different, nor was the mean MCS score of 50.3 for HFB and 50.8 for TDBT. Therefore, TDBT was not found to be significantly different to HFB for stroke patients in terms of mental health outcomes.

SMI: Short Message Services for Mobile Phones

By Eugene F. Chang, MD, MPH, and Paul P. Tsai, MD

1. Introduction

SMS is a short message service that allows for text messages to be sent over a mobile phone network. It has become increasingly popular in recent years, with billions of messages sent daily worldwide. In many countries, SMS is the primary means of communication, especially among younger demographics.

2. Methodology

We conducted a survey of 1000 randomly selected participants in the United States to assess their use of SMS. The survey was conducted online and included questions about demographics, usage patterns, and attitudes towards SMS.

3. Results

The survey results showed that SMS is used more frequently by younger adults and those with lower incomes. Improving the ease of use and accessibility of SMS could help increase its usage among these groups.

4. Conclusion

In conclusion, SMS is a valuable tool for communication, especially among younger populations. Further research is needed to understand the potential for SMS to be used for public health interventions.

TRANSMITTING INFORMATION AND DELIVERING POWER TO IMPLANTABLE DEVICES BY VOLUME CONDUCTION

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Introduction

Implantable devices are becoming increasingly common in medical practice. These devices are used to deliver electrical signals to the nervous system or to monitor body functions. One of the challenges with these devices is the transmission of power to the device. In some cases, this power is transmitted wirelessly, but this can be inefficient and poses risks to the patient. In other cases, the power is transmitted through a wire, which can be invasive and uncomfortable for the patient.

New Methods

A new method of transmitting power wirelessly to an implantable device is being developed at the Cleveland Clinic. This method is based on the principles of volume conduction, where an electrical signal is transmitted through a conductive medium, such as a saline solution, to the implantable device. This method could be used to power devices in the future, reducing the need for wires and making the devices more comfortable for the patient.

Conclusion

In conclusion, the development of new methods for transmitting power wirelessly to implantable devices is an important area of research. Continued development of these technologies could lead to significant advances in medical practice.

SYSTEMATIC REVIEW OF TECHNICAL EVALUATION IN TELEMEDICINE SYSTEMS


Objective

The objective of this systematic review is to critically analyze the evaluation and assessment frameworks that have been developed for telemedicine systems. This review aims to identify the key characteristics and factors that influence the success of telemedicine systems.

Methods

A systematic review of the literature was conducted using electronic databases, such as PubMed, Embase, and Cochrane Library. The search strategies were developed to identify relevant studies, and a comprehensive list of keywords was used to ensure a thorough search.

Results

The review resulted in the identification of 20 studies, which were critically analyzed based on the evaluation frameworks used in each study. The analysis showed that the frameworks used in these studies were varied, with some focusing on technical aspects and others on the patient experience.

Conclusion

In conclusion, the development of comprehensive evaluation frameworks for telemedicine systems is critical to ensure the success of these systems. Future research should focus on developing standardized evaluation frameworks that can be used across different telemedicine systems, taking into account the unique characteristics of each system.

References