

# **EFFECTIVENESS OF TELEMONITORING IN REDUCING GLYCELATED HAEMOGLOBIN, HbA1c AMONGST DIABETIC ADULTS (18-84 YEARS) IN THE UNITED STATES.**

# OXFORD BROOKES UNIVERSITY

## **Introduction**

Diabetes is on the increase in the United States with incidence rates above 38% of US adult population. In 2022, over 83,000 people died from diabetes in the US making it a serious public health concern. There are many interventions for managing diabetes in the US, most of which revolve around hospital visits and lifestyle choices. Monitoring of diabetic patients is very crucial in managing the condition and telemonitoring provides a pathway for healthcare professionals to be constantly aware of their patients' progress with the condition. Hence it's important to know if telemonitoring is effective in reducing blood sugar level of the patients and in what forms this telemonitoring is administered to patients.



## **Objective**

This review was designed to investigate the effectiveness of telemonitoring in reducing the blood glucose level of diabetic adults in the United States.

## **Methodology**

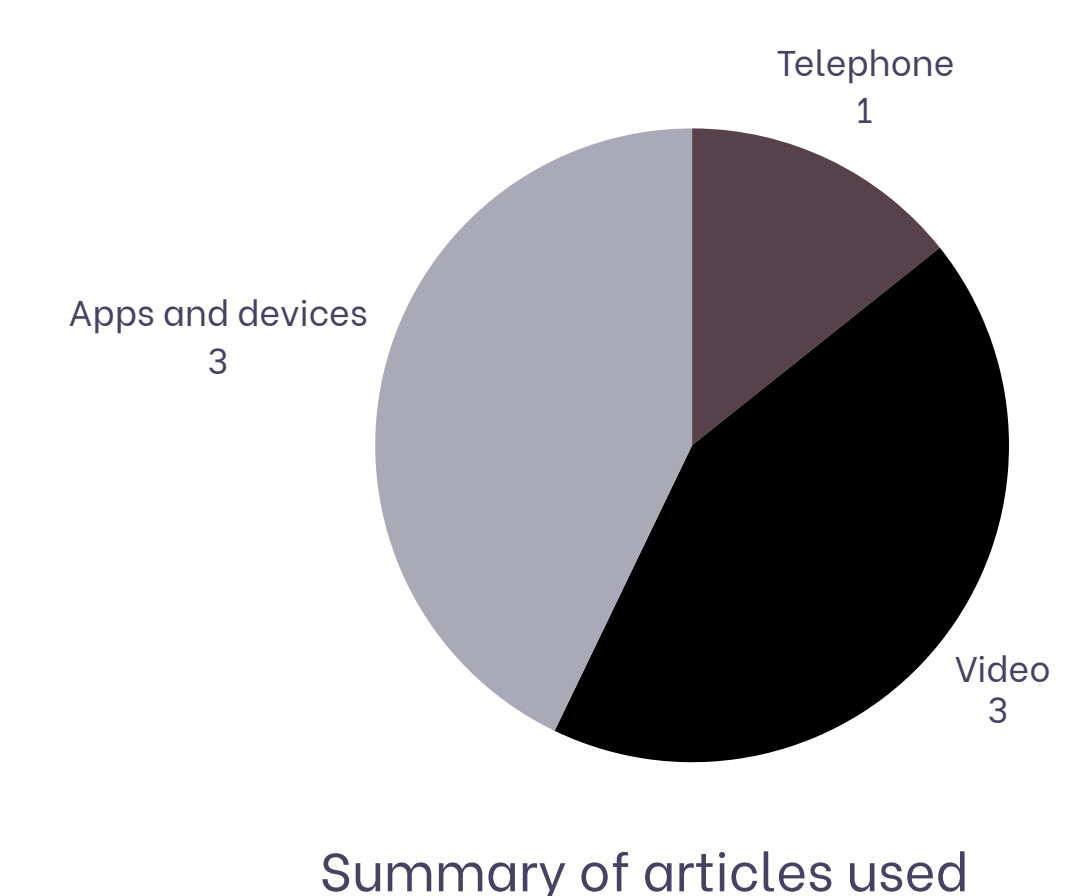
A quasi-systematic literature review was used to search three databases (CINAHL, PubMed and MEDLINE) for primary literature in line with the research goal. Narrative synthesis was used to analyze the studies. All included studies were Randomised Controlled Trials (RCTs). The CASP and EPHPP tools were used to appraise the quality of the included studies.

## **Results**

Seven primary research were included in the review. The studies showed that telemonitoring was effective in reducing blood sugar level of adult diabetic patients in the US in five studies. The review also found that video conferencing was the most effective telemonitoring model in the US, followed by digital apps but telephone calls were not effective.

## **Analysis**

Diabetes is a chronic disease that requires decades of management and as such, the Chronic Care Model (CCM) was used to guide the review as it analysed the importance of telemonitoring in the healthcare system. The findings of the studies revealed central themes which includes improved blood glucose level in five studies, improved self-management skills in three studies and improved delivery support and decision-making support in all included studies



## **Conclusion**

Telemonitoring aids patient centered care (PCC). Hence, it is important to provide patients with choices of what platform is conducive to them to improve their health outcomes. Therefore, more studies need to be done to identify its effectiveness within different age groups.

## **Author**

CHINWENDU NKWOCHA, MBBS, MPH

## **Supervisor**

PROF ASTRID SCHLOERSCHIEDT