TELEHEALTH AND DIABETES SELF-MANAGEMENT

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OBJECTIVES

• The learner will be able to identify 3 barriers to diabetes self-management.

• The learner will be able to discuss 2 benefits of telehealth.
DEFINITIONS

- Defined by Center for Medicare/Medicaid Services as “Telehealth is the use of telecommunications and information technology to provide access to health assessment, diagnosis, intervention, consultation, supervision and information across distance.”

- Funnell et al. define Diabetes self-management education as “the ongoing process of facilitating the knowledge, skill, and ability necessary for diabetes self-care.”
BARRIERS TO CARE

- Cultural barriers
- Expense
- Time
- Lack of Access
- Transportation
- Low seriousness of diabetes
- Denial of their disease process
PURPOSES

The purposes of this study were to determine if a telehealth intervention on diabetes self-management pilot program will improve hemoglobin A1C’s and BMI’s in type 2 diabetics over a 3-month period.
DESIGN

A Quantitative Retrospective Chart Review using existing data from a current pilot study on telehealth diabetes self-management program.
INTERVENTION

• The intervention was using telehealth to deliver diabetes self management education to patients in a primary care clinic. This was a pilot study between a hospital diabetes educator and a rural primary care clinic.
METHODS

- Baseline Hemoglobin A1c and BMI were compared to the 3 month follow-up Hemoglobin A1C and BMI after the intervention.
- Descriptive statistics were used to describe the sample.
- SPSS Data Analysis Tool Package was used.
- A paired samples t-test was used to compare groups to determine if there was a difference in scores after the intervention.
- Alpha was set at 0.50 to determine statistical significance.
RESULTS

• Paired Samples t-test was performed to detect a difference between the means pre and post intervention.

• Descriptive statistics were used to describe the sample

• N=20. 36 total referred but one elected to a live course, 6 did not show up or cancelled the telehealth intervention, and 9 did not come back to the clinic for follow up appointment and lab work.

• Pre-A1C range is 5.7-15.6 and Post-A1C is 5.9-14.9

• Pre-BMI and Post-BMI range is 27-47
HEMOGLOBIN A1C RESULTS

• A one-tailed paired samples t-test revealed that pre-intervention hemoglobin A1C levels ($m=9.0$, $s=2.84$) were decreased after the telehealth intervention ($m=8.4$, $s=2.54$), $t(19)= 2.011$, $p<.05$. 
BODY MASS INDEX RESULTS

• A one-tailed paired samples t-test revealed that body mass index measurements before the intervention (\(m=37, s=5.12\)) were not significantly decreased after the telehealth intervention (\(m=37, s=5.20\)), \(t(19)= 1.25, p>.05\).
EVALUATION OF THE OUTCOMES

• The hemoglobin A1C results were lower so it is thought the intervention helped the patients to feel more empowered in their self-management.

• The telehealth intervention used and the pilot study added to the body of knowledge related to telehealth.
IMPLICATIONS TO PRACTICE

• Sustainable solution to lack of access to care
• Empower the patient to better self-care strategies and help the patient better control their disease process
• Decrease micro vascular changes that lead to complications and poorer quality of life
• Health care cost savings and fewer hospitalizations.
STRENGTHS

• Technology is readily available

• Diabetic Educators are readily available
LIMITATIONS

• Small sample size

• Difficulty keeping consistent communication with patients

• Difficulty in keeping follow up care
FUTURE RESEARCH

• Explore other chronic disease processes such as hypertension and telehealth.

• Other studies within a different populations

• A larger sample size should be explored.

• Patient satisfaction with the telehealth intervention could be explored.

• Also, self-empowerment could be measured.
SUSTAINABILITY

• This pilot study has progressed to a full program and is still being utilized.

• The pilot study is also being explored by other clinics.
THANK YOU
REFERENCES


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