Creating Healthy Work Environments VIRTUAL 2021

Implementing Individualized Sedentary Behavior Reduction Education to Improve HbA1c

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Purpose: Many patients do not reach their targeted goals for risk and disease management of diabetes with the current recommendations for lifestyle modifications (Morgan, et al, 2017). According to Missouri Health and Senior Services (2019), 18,520 inpatient hospital admissions had a primary diabetes diagnosis in 2016. In recent studies, the evidence suggests sedentary behavior time has a stronger association with metabolic disease risk than a lack of physical activity alone (Biddle, et al, 2019; Larsen, et al, 2015). High sedentary behavior times increase metabolic disease risks and increase disease burden (American College of Sports Medicine, 2019; Martin, et al, 2015). To determine if a more customizable intervention regarding reducing sedentary behavior times was feasible, the student investigator will seek to implement an individualized educational sedentary behavior reduction education program based on risk stratification and perceived risk knowledge within type II diabetics.
Methods: The IRB for this project will be the University of Missouri-Kansas City IRB. The pilot is a pre/post-test quasi-experimental design. The setting will be conducted in a rural primary care clinic in northwestern Missouri. Participants will have a diagnosis of Type II diabetes and over 13 years of age, with an HbA1c greater than 8. The project will be conducted during a 6-month timeframe. The planned intervention comprises of an individualized sedentary behavior reduction education. The primary outcomes to be measured are pre and post-intervention HbA1c, sedentary behavior time, as measured by the Rapid Assessment Disuse Index tool. Secondary outcomes measured are reduction in diabetes medication therapies, comorbidities, improvement in attitude, and increased perceived health risk measured by the pre/post-Likert scale. The data analysis plans include a paired t-test, Wilcoxon signed rank test, and a McNemar scale.
Results: Completing the intervention will provide added data regarding customizable education to reduce sedentary behavior activity times. The population is mostly Caucasian, and the sample size is small. There are possible attrition and clinic closure due to COVID-19 contributing further to limitations in this project.
Conclusion: The project seeks to benefit healthcare in adding value to educational intervention through objective customization. Individuals are more likely to adhere to change when they can see the value in the change (Gorlan, et al, 2019). Increasing the patient's perceived risk may increase motivation and the intention to adhere to the intervention based on the patient's risk level. This strategy may be more engaging for both the clinician and the patient.

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Keywords:
education, sedentary behavior reduction and type II diabetes

Abstract Summary:
The educational activity will discuss using a customized objective intervention to improve HbA1c by implementing sedentary behavior reduction education as measured by an evidence based measurement tool. The intervention also includes an objective measure to asses and perceived health risk and knowledge regarding sedentary behavior in type II diabetics.

Late Breaking Reason:
This ongoing project is designed to add value to sedentary behavior reduction education by increasing perceived risk on an individual basis. The goal is to engage clinicians and patients in the education being provided, empower patients to work through barriers that promote high sedentary behavior times, and improve overall health.

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Author Summary: I have worked as a nurse after earning my BSN since 2012 within the VA system. I earned by MSN and certification as an FNP in 2018 and I have been working as a Family nurse practitioner in academia for 1 year and now within the Integrative Medicine setting.