

Nursing Education Research Conference 2018 (NERC18)

Will Bi-Monthly Telephone Contact Help Compliance to Improve Exercise Regimen in Obese Type 2 Diabetes?

James Todd, DNP, RN

College of Nursing, Mississippi University for Women, Tupelo, MS, USA

Abstract

Diabetes is a compelling and complex disease with a high morbidity and mortality rate. The cost associated with this disease, financially and physically, is substantial. Diabetes affects 25.8 million people (8.3%) of the population in the United States, and data from the National Health and Nutrition Examination Survey showed that more than one-third (34.9%) of adults were obese (Centers for Disease Control [CDC], 2013). The Center for Disease Control and Prevention (CDC) reported that 8.3 percent or 25.8 million people in the U.S. are obese and 9.3 percent or 29.1 million have diabetes. Type 2 diabetes is a chronic health condition that has also been called adult-onset or non-insulin dependent diabetes. Although an individual living with type 2 diabetes is most likely a life-long condition, it can be controlled by losing weight, adhering to a healthy diet and exercise regimen. Studies have shown that participating in physical activity 20 to 30 minutes at least every 48 hours can play a role in the control of a diabetic individual's hemoglobin A1C by increasing the efficiency of insulin in the body which allows more insulin to enter the cells and decrease blood glucose levels. Physical activity/exercise is a fundamental component of self-management in diabetes care. The purpose of this project is to identify if bi-monthly telephone contact will help motivate obese individuals who have type 2 diabetes to be more compliant with an exercise regimen. The pilot study consisted of bi-monthly (twice monthly) telephone contact with type 2 diabetics who are obese. The sample size of participants included 20 individuals ranging 19 to 78 years of age. The study included two males and 18 females. The findings of this study suggest that type 2 obese diabetics are more physically active and compliant in an exercise regimen when contacted twice a month by telephone calls. Study participants reported being motivated to be more physically active through telephone contact and a having an overall sense of well-being after exercising.

Title:

Will Bi-Monthly Telephone Contact Help Compliance to Improve Exercise Regimen in Obese Type 2 Diabetes?

Keywords:

Exercise Regimen, Obese and Type 2 diabetes

References:

American Diabetes Association. (2014). Standards of medical care in diabetes---2014. *Diabetes Care*, 37, S14-S80.

Centers for Disease Control. (2012a). Diabetes report card 2012. Retrieved from <http://www.cdc.gov/diabetes/pubs/pdf/diabetesreportcard.pdf>

Centers for Disease Control. (2012b). Trends in adult receiving a recommendation for exercise or other physical activity from a physician or other health professional. Retrieved from <http://www.cdc.gov/nchs/data/databriefs/db86.pdf>

Centers for Disease Control. (2013). Adult obesity facts. Retrieved from <http://www.cdc.gov/diabetes/pubs/statereport14.htm>

International Diabetes Federation. (2013). Diabetes: facts and figures. Retrieved from <http://www.idf.org/worlddiabetesday/toolkit/gp/facts-figures>

Abstract Summary:

The purpose of this project is to identify if bi-monthly telephone contact helped motivate obese individuals who have type 2 diabetes to be more compliant with an exercise regimen. Study participants reported being motivated and more physically active through telephone contact and having an overall sense of well-being after exercising.

Content Outline:

I. Introduction

A. The Center for Disease Control and Prevention (CDC) reported that 8.3 percent or 25.8 million people in the U.S. are obese and 9.3 percent or 29.1 million have diabetes.

B. Type 2 diabetes is a chronic health condition that has also been called adult-onset or non-insulin dependent diabetes. Although an individual living with type 2 diabetes is most likely a life-long condition, it can be controlled by losing weight, adhering to a healthy diet and exercise regimen.

II. Body

A. Main Point # 1 Telephone contact by nurses that focused on the patient controlling blood glucose levels through effective healthy diets, exercising regularly, and taking prescribed medications has also been shown to improve adherence to type 2 diabetes management.

1. Supporting Point # 1 Lewis, Martinson, Sherwood, and Avery (2011) conducted a pilot study that produced evidence that demonstrated the effectiveness of telephone-based exercise regimens during pregnancy.

2. Supporting Point # 2 Individuals with type 2 diabetes who are counseled through peer-led telephone contact regarding their physical activity have also been shown to have increased health benefits. These individuals also agreed that the peer counseling served as a good motivator for their activity (Plotnikoff et al., 2010).

B. Main Point # 2 Peer support for these self-management skills can have a significant positive impact to the health of individuals with diabetes.

1. Supporting Point # 1 Telephone-based peer-support interventions can be a satisfactory substitute for face-to-face interactions (Heisler, 2009).

C. Main Point # 3 It is important that people living with diabetes and are obese have optimal strategies to control and maintain a healthy lifestyle to promote positive health outcomes.

1. Supporting Point # 1 Long and Gambling (2012) studied how changes in the extent of knowledge of diabetes along with confidence and motivation strengthened behavioral change interventions for patients with type 2 diabetes.

III. Conclusion

A. Telephone based contact with obese type 2 diabetes in order to motivate and assist in compliance of a physical activity/exercise regimen has been shown to be feasible, resourceful, and beneficial. Participants became more physically active inside and outside the home. Reported finger stick blood glucose readings have improved and participants reported feeling better and healthier after physical activity.

First Primary Presenting Author

Primary Presenting Author

James Todd, DNP, RN
Mississippi University for Women
College of Nursing
Assistant Professor
Tupelo MS
USA

Professional Experience: I have been a nurse since 1985. My main experience is in med-surg., critical care, and education. I spent 21 years in critical care as a charge nurse and then nurse educator. I have been an university nursing educator for 9 years in both face-to-face and online education.

Author Summary: I teach in an advance placement online RN-to-BSN program with an average of 350 students per academic year. Online education is a challenge but one that I take seriously because I want to make the task of learning not routine but fun, exciting, and interactive. Nursing is unlike any other profession and the experiences are for a lifetime. This should be true for the educational experience as well.

