

Development of an eHealth Nursing Intervention on Self-Care to Prevent Diabetic Foot in Rural Mexico: A Pilot Test

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Abstract. Diabetic foot affects nearly 6% of people living with Type 2 diabetes (T2D). It is also the most common complication of T2D and is associated with infection, ulceration. eHealth facilitation of Non-communicable diseases management has the potential to increase self-care and engage patients. The aim of this study is to develop an eHealth intervention to prevent diabetic foot.

Keywords. eHealth, nursing intervention, self-care, diabetic foot

1. Introduction

According to the World Health Organization, 41 million people die each year from complications associated with Non-communicable diseases (NCDs) [1]. The cost of NCDs is exorbitant as associated health care needs are often lengthy and expensive [2]. Type 2 Diabetes (T2D) represents the second leading cause of death in Mexico [3] and its care account for a high percentage of the public health budget. The total annual expenditure of people with diabetes in Mexico is 224,350 million pesos [4]. Diabetic foot is the most common complication of T2D and affects nearly 6% of people living with this condition [5]. eHealth facilitation of NCDs management has the potential to increase self-care and engage patients. The purpose of this poster is to discuss the proposed development an eHealth intervention to prevent diabetic foot.

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2. Methods

The eHealth intervention to prevent diabetic foot will be piloted with patients in the age range of 18 to 60 years and who have a mobile device and internet access. The study site is in a rural public clinic. The experimental group will receive an eHealth intervention (N = 30) and a control group (N =30) receive an intervention using printed information. A quick pre-test will be carried out on all participants to determine self-care about foot care using the APD-UMA [6]. The experimental eHealth intervention consists of educational audiovisual content such as videos, podcasts, and infographics, based on recommendations for the prevention of diabetic foot from the Clinical Practice Guideline published by the Secretary of Health [8]. This information will be developed by diabetic nurse educators once a week for 16-weeks to the experimental group by an open access platform called “*Transform your Health*”. To measure the level of understanding of the topics between both groups a survey of 5 questions will be used to record the participants responses. That information will be sent out electronically for the experimental group, the questions will be sent by printed format for the control group each week. The final level of self-care about foot care will be measured with the same questionnaire at the end of the study. The knowledge will be compared with the initial assessment by inferential and descriptive statistics. Ethics approval will be obtained by the University UPAEP and the clinic ethics committee. The sample size was calculated by the infinite population.

Discussions and Conclusions

This pilot study will demonstrate the impact of a nursing intervention to prevent diabetic foot using an eHealth intervention. The study will also serve as a foundation to determine the areas of opportunity when applying these types of interventions to support the care of people living with T2D and diabetic foot. For example, supporting clinics to work in parallel with eHealth as a complement of the treatments of patients. Even if, in Mexico the use of digital technologies in health and health promotion continue in study, advancement, and evaluation, there is still an enormous amount of work to address the gap between the use of technology and health inequality and access to health.

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