عنوان البحث باللغة الإنجليزية:-

Effect of training program on the improvement of knowledge and ankle brachial index measurement for diabetic patients

ملخص البحث باللغة الانجليزية:

Introduction

Diabetes mellitus is the leading cause of peripheral neuropathy, commonly manifested as symmetrical and distal polyneuropathy. Diabetes mellitus is a high-risk population for peripheral artery disease (PAD), a main artery disease caused by atherosclerosis. The ankle-brachial index (ABI) is an efficient tool for objectively documenting the presence of lower-extremity PAD.It is a simple and cost-effective assessment that can be used to detect lower-extremity arterial stenosis in the primary care setting, as well as to identify patients at increased risk for lower-extremity arterial injury after penetrating or blunt trauma. Researches supported that DM and its complications can be prevented or delayed by a healthy diet, regular physical activity, adhering to medications and screening tests, maintaining a normal body weight, and avoiding tobacco. People are rarely aware of the impact such behaviors could have on their risk of developing complications

Aim of the Study:

This study aims to evaluate the effect of training program on the improvement of knowledge and ankle brachial index (ABI) measurement for diabetic patients

Subjects and Methods:

Design: A quasi-experimental research design

Research hypothesis:

This study hypothesized that:

-Implementation of training program will affect positively on the patients' level of knowledge regarding diabetic care.

-Implementation of training program will affect positively on the improvement of ankle brachial index measurement for diabetic patients

Research questions:

1.What is the effect of training program on patients' level of knowledge regarding diabetic care?

2.What is the effect of training program on ankle brachial index measurement for diabetic patients?

Study Setting: The study was conducted at the Diabetic and Endocrine outpatient clinic, affiliated to Governmental Cairo University Hospital, Egypt.

Sample:

A purposive sample of 238 adult diabetic patients' diagnosed type 2 from at least two years, from both genders .

Tools of Data Collection: . Four tools were utilized to collect data in the current study

1. Patient Demographic Characteristics: It consisted of demographic characteristics of patients under study such as age, gender, height, weight, educational level, smoking status, BMI, and duration of illness.

2. Interview questionnaire sheet: to assess patient knowledgeregarding diabetic self-care

3. Ankle brachial index measurement(ABI):

This tool used to measure and record ankle brachial index for each patient 3 times, before training program immediately and after the training implementation by 2 months and then after 4 months

4. Lower limb neurovascular assessment:

This tool was used to assess patients' lower limb neurovascular condition before training program immediately and after the training implementation by 2 months and then after 4 months, it consisted of (skin condition {color, temperature, and capillary refill}, peripheral pulse, edema, etc.).

Results:

There was a high significant improvement in the neurovascular assessment mean score between the three time measurements. In addition, the foot ulceration occurred during the research for 8 patients (4%) on one foot. There is a highly statistically significant improvement between pre and post test total mean scores of knowledge which reveals improvement in patient's knowledge regarding all items of self-care. There was a highly statistically significant correlation between patients' knowledge

(post test) and ankle-brachial index measurement (3rd measurement) post implementation of the training program.

Conclusion:

The results of this study concluded that the implementation of the training program for diabetic patients had statistically significant positive effect on improving knowledge related to (foot care, medication, diet, exercise, and self-motoring) and this reflect on improving ankle brachial index measurement for diabetic patients.

Recommendations

-Media should communicate an educational message to the diabetic patients to prevent further diabetic complications by adopting a healthy lifestyle
- Teaching program to all nurses working at diabetic clinics how to measure ABI to detect peripheral artery disease early.

- Re-education sessions for diabetic patients are needed to maintain thepositive effect of the education program that can be achieved through a well-organized follow-up.