

Clinical Rehabilitation

The effects of a supportive-educational intervention on women with type 2 diabetes and diabetic peripheral neuropathy: a randomized controlled trial

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Zohre Ahrary, Shahla Khosravan, Ali Alami, Mahdi Najafi NesheliFirst

Zohre Ahrary

Bohloul Hospital, Gonabad University of Medical Sciences, Gonabad, Iran

Shahla Khosravan

Department of Community Health Nursing & Management Nursing, School of Nursing, Social Determinants of Health Research Center, Gonabad University of Medical Sciences, Gonabad, Iran

Shahla Khosravan

Department of Community Health Nursing & Management Nursing, School of Nursing, Social Determinants of Health Research Center, Gonabad University of Medical Sciences, Gonabad, Iran

Mahdi Najafi Nesheli

Department of Medical Sciences, Islamic Azad University, Qom, Iran

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Abstract

Purpose:

To determine the effect of a supportive educational intervention based on the Orem self-care model on women with type 2 diabetes and diabetic peripheral neuropathy.

Design:

A randomized controlled trial.

Setting:

Hospital outpatient diabetes clinic.

Subjects:

Adult women with type 2 diabetes and mild-to-moderate diabetic peripheral neuropathy. Out of 410 patients, 120 diabetic patients were recruited and randomly assigned to trial group (N = 60) and control group (N = 60).

Intervention:

The trial group received a designed intervention consist of one-month supportive educational program with three months of follow-up (totally four months), based on self-care requisites according to the Orem self-care regarding diabetic peripheral neuropathy. The control group only received a routine care program in the diabetes clinic.

Main measurements:

The main outcomes were symptoms and severity of diabetic neuropathy. Further outcomes were fasting blood sugar and glycosylated hemoglobin.

Results:

By the end of the intervention, the number of participants reduced from 60 to 58 in the trial group and to 57 in the control group (totally 115). The intervention significantly decreased mean score of diabetic neuropathy symptoms (trial group: 3.26 vs. control group: 9.57, $P = 0.001$), severity (trial group: 5.86 vs. control group: 9.02, $P = 0.001$), fasting blood sugar (trial group: 151 vs. control group: 204, $P = 0.001$), and glycosylated hemoglobin (trial group: 7.85 vs. control group: 8.62, $P = 0.004$).

Conclusion:

Delivering a supportive-educational intervention based on the Orem self-care model on outpatient diabetes clinic can decrease the symptoms and severity of diabetic peripheral neuropathy.

Trial registration:

It was registered in the Iranian Registry of Clinical Trials (IRCT2015021521095N1).

Keywords Diabetic peripheral neuropathy, supportive educational intervention, Orem self-care model, self-care, nursing care