An educational intervention to improve the quality of care of diabetic patients

by

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An Educational Intervention to Improve the Quality of Care of Diabetic Patients

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A. Declaration

Project Supervisor: Prof Paul Rheeder

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I declare that the dissertation/thesis, which I hereby submit for the degree MSc(Clinical Epidemiology) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at another university.

Signature:

Date:

This study was approved by the Ethics Committee of the Pretoria Academic Hospital.
This work has been published in the following journal:


An abstract was also presented at the:

Society for Endocrinology, Metabolism and Diabetes of South Africa
(SEMDSA) congress in 2001 as an oral presentation
C. List of Abbreviations

ANCOVA : Analysis of Covariance

COPD : Chronic Obstructive Pulmonary Disease

D : dissatisfied

DAS : Diabetes Attitude Scale

DM : Diabetes Mellitus

DP : Dorsalis Pedis

DPS : Diabetes Practice Scale

HbA₁c : Haemoglobin A₁c = Glycated Haemoglobin

HRQOL : Heath Related Quality of Life

MBChB : Baccalaureus in Medicine and Surgery

MD : Doctorate in Medicine

mmol/l : millimol per litre

mm Hg : Millimeters mercury

MMed : Magister in Medicine

MS : Microsoft

MSc : Magister in Science

N : Number

Prof : Professor

RCT : Randomised Controlled Trial

S : Satisfied

SD : Standard Deviation

TP : Tibialis Posterior

VD : Very Dissatisfied

Vol : Volume

VS : Very satisfied
D. List of Tables:

Table 1. Results of the Diabetes Attitude Scale (DAS-3)
Table 2. Results of Diabetes Practice Scale (DPS)
Table 3. Optimal Metabolic and Blood Pressure Control as Reported by the Doctors
Table 4. Baseline Characteristics of the Study Population
Table 5. Work-up of Study Population

Keywords: Diabetes; Diabetes Education; Diabetes Attitude Scale.
E. Opsomming

'n Opvoedkundige Intervensie om die Kvaliteit van sorg aan Diabetiese Pasiënte te Verbeter
deur
Helena Oosthuizen

Promotor: Prof Paul Rheeder
Departement: Kliniese Epidemiologie
Skool van Geneeskunde
Fakulteit van Gesondheidswetenskappe

Graad: MSc (Kliniese Epidemiologie)

Inleiding:
Daar is 'n gebrek aan studies wat kyk na intervensies om die sorg van gehospitaliseerde diabetiese pasiënte te verbeter en die doel van hierdie studie was dus om te ondersoek of 'n opvoedkundige intervensie aan dokters die kwaliteit van sorg aan diabetiese pasiënte kan verbeter.

Metode:
Hierdie studie was 'n ongekontroleerde voor-en na-intervensiestudie in 'n tersiëre sorg hospitaal in Pretoria. Dokters werksaam in die departement Interne Geneeskunde was die populasie waarop die twee opleidings intervensie sessies, oor sorg aan diabetiese pasiënte wat gehospitaliseer was, uitgevoer is. 'n Gestandaardiseerde Diabetes houdingskaal (Diabetes Attitude Scale DAS-3) en Diabetiese Praktyk vrae lys is deur alle dokters voltooí voor die aanvang van die opleiding sessie en ook na voltooiing van die laaste sessie. Inligting van gehospitaliseerde diabetiese pasiënte is versamel vir vyf weke voor die eerste inligting sessie en ook weer vir 'n tydperk van vyf
weke na die voltooiing van die kliniese opleiding sessie. Hierdie twee stelle inligting is met mekaar vergelyk om die effek van die opleiding te evalueer.

**Resultate:**

Subskale van die Diabetiese houdingskaal het verbetering getoon met 'n statisties betekenisvolle verbetering in die houding teenoor ernstigheid van diabetes mellitus (p= 0.03) en 'n neiging na verbetering in houdings teenoor nodigheid vir spesiale opleiding en ook pasiënt autonomie. Meeste van die items in die Diabetiese Praktykskaal (DPS) het betekenisvol verbeter (p < 0.05).

**Gevolgtrekking:**

'n Kort opleidingsintervensie het gelei tot 'n verbetering in houding, kennis en kliniese hantering van diabetiese pasiënte.

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**Methods:**

This was an uncontrolled before-after interventional study in a tertiary care hospital in Pretoria. Doctors working in the Department of Internal Medicine were the subjects of two interventional sessions on diabetic care and all diabetic patients admitted to the hospital during that period. Doctors in the Department of Internal Medicine were evaluated using a Diabetes Attitude scale (DAS-2) and a Diabetes Practice Scale (DPS). Each doctor completed the scales twice, once before and once after the intervention. The effect of the interventional training and these 2 sets of data were compared to measure the effect of the interventional training.
F. Summary

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Promotor: Prof Paul Rheeder

Department: Clinical Epidemiology

School of Medicine

Faculty of Health Sciences

Degree: MSc (Clinical Epidemiology)

Introduction:

As few studies have addressed intervention for in-hospital care of diabetes mellitus, the purpose of this study was to investigate if an educational intervention for doctors could improve the quality of care for diabetic patients.

Methods:

This was an uncontrolled before-after interventional study in a tertiary care hospital in Pretoria. Doctors working in the Department of Internal Medicine were the subjects of two interventional sessions on diabetic care and all diabetic patients admitted to the wards in Internal Medicine were evaluated. Diabetes Attitude scale (DAS-3) and a Diabetes Practice Scale (DPS) were completed by each doctor before and after the interventional educational sessions. Data from diabetic patients in the wards were collected for 5 weeks before the interventional training and for 5 weeks after the interventional training and these 2 sets of data were compared to measure the effect of the interventional training.
Results:

Sub-scales of the Diabetes Attitude scale (DAS-3) showed an improvement, with a statistically significant improvement in attitude regarding seriousness of diabetes mellitus (p=0.03) and a trend towards improvement in attitudes regarding need for special training and patient autonomy. Most of the items on the Diabetes Practice Scale (DPS) improved significantly (p < 0.05).

Conclusions:

A short educational intervention resulted in an improvement in attitude, knowledge and clinical management of diabetic patients.