



The role of the community pharmacists in managing patients with diabetes type 2

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Introduction

Control of diabetes has become one of the most important components of health care system programs. The management of diabetes is complicated and requires life-long therapy. Among different strategies for diabetes control, improving medication adherence and patient education plays an important role for optimizing diabetes control.

Community pharmacists are in an ideal position in providing care and education for diabetic patients. Patients education should be focused in improving medication adherence, knowledge of the medications and their side effects and self management of diabetes.

The trusted relationship patient-pharmacist can improve diabetes care and outcome.

Objectives

The objective of this study was to evaluate if a pharmaceutical care program could improve glycaemic control in patients with diabetes type 2.

The aims of the study are :

1. To reinforce lifestyle advice given to patients at their annual reviews
2. To improve glycaemic control in patients with diabetes and their adherence to medication.
3. To encourage participation to support groups.

Table 1

Variable	Control group (n = 60)	intervention group (n= 60)
Mean Hb1Ac (%) (± SD)		
Baseline	7.93 ± 0.58	8.46 ± 0.7
After intervention (9 months)	7.67 ± 0.6	7.14 ± 0.24
Mean fasting blood glucose (mg/dl) (± SD)		
Baseline	221.38 ± 27.96	222.9 ± 26.35
After intervention (9 months)	214.68 ± 28.74	176.11± 9.2
Mean BMI (± SD)		
Baseline	29.2 ± 1.68	29.45 ± 1.44
After intervention (9 months)	28.98 ± 1.45	26.81± 1.38

Methods

The study was conducted in a community pharmacy in the city of Lezhe, Albania.

This was a randomized controlled trial, with participants randomly allocated in 2 groups (allocation ratio 1:1).

Eligible participants were all adults aged 45 or over with an established diagnose of diabetes, BMI ≥ 25 and HbA1c ≥ 7.0%

(UKDPS,1998)

The two parallel groups consists of the Control group usual care(CG) where there was no pharmaceutical involvement and the Intervention group (IG) pharmaceutical care , consisting of a regularly follow-up by the pharmacist during a 9 month period.

At each visit the pharmacist had conducted a detailed interview with IG patients, identifying problems leading to poor diabetes control, providing patient education (lifestyle, medication and HbA1c goal to achieve). Also the pharmacist gave to IG patients a pill box and a diary log. To patients of both groups were measured their fasting blood glucose, BMI and HbA1c at the baseline and at the end of the study and also their knowledge of the disease.

Table 2 Demographic characteristics of patients in both groups

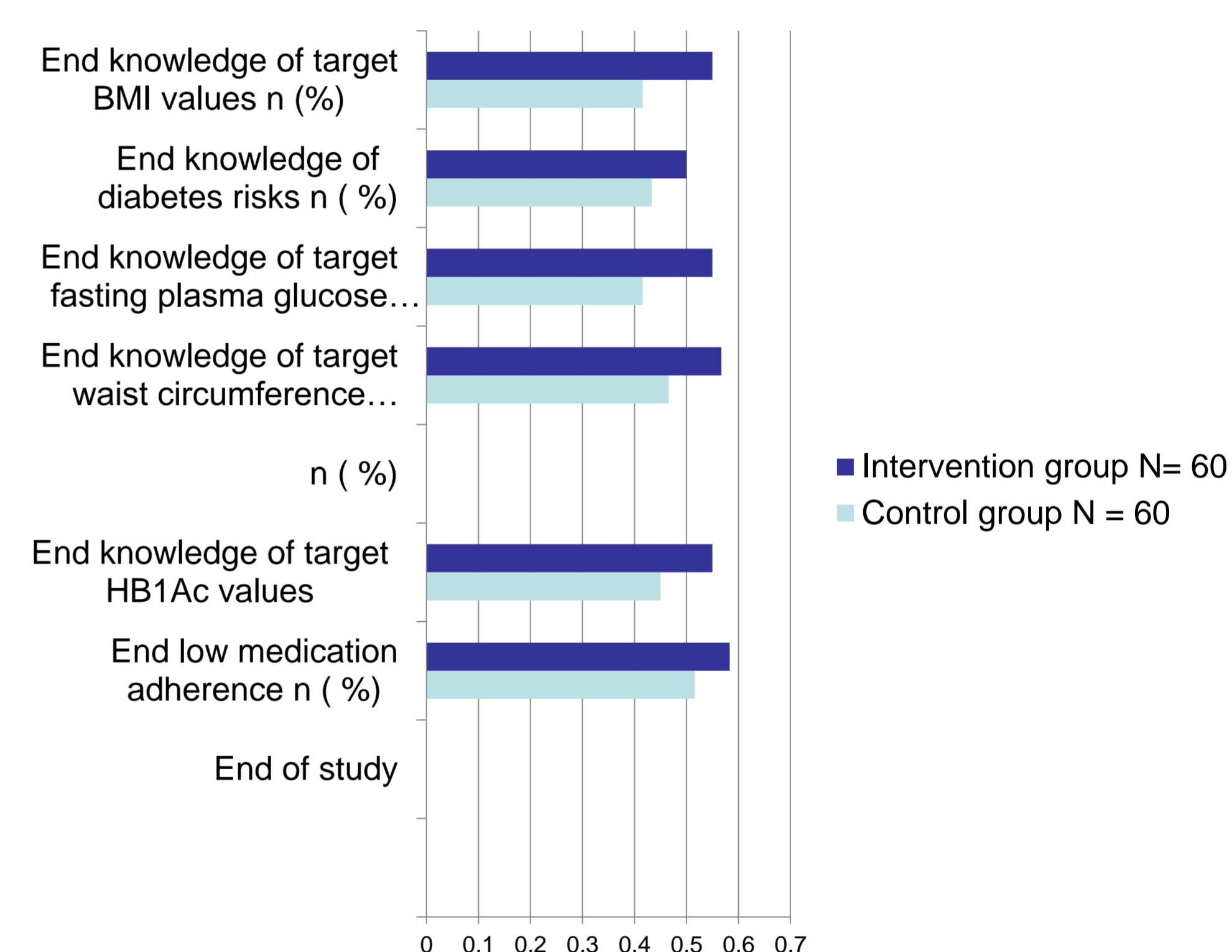
Variable	Control group (n= 60)	Intervention group (n= 60)
Sex (%)		
Male	41.6 %	41.6 %
Female	58.4 %	58.4 %
Mean age (± SD) (years)		
	54.8 ± 5.48	54.65± 4.98
Mean duration of DM in years (± SD)		
	6.4 ± 2.6	6.04± 2.22
Mean Income level (%)		
below average	35 %	28.3 %
average	51.7 %	55 %
more than average	13.3 %	16.7 %

Results

The study showed that the pharmacy-based program significantly improved medication adherence and glycaemic control in the IG group. At the beginning of the study patients in both group had minor differences in their demographic characteristics (Table 2) and their HbA1c values and Fasting blood glucose but at the end of the study there was a significant improvement in the IG group.

(Table 1).

The pharmacists education sessions, use of pill box and follow up appointments proved to be beneficial in improving patients knowledge and also reducing Fasting Blood Glucose and HbA1c in patients in the IG Group. (fig 1)



Conclusions

1. Pharmacist intervention can significantly improve medication adherence and glycaemic control in patients with diabetes.
2. Community pharmacists are valuable members of multi disciplinary healthcare teams in the management of patients with diabetes.

References

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3. Lean MEJ et al: Obesity , weight loss and prognosis in type 2 diabetes; Diabetic Med (1990):7:228