



# An assessment of factors related with understanding education and knowledge of self-care among patients with diabetes mellitus: a cross sectional prospective study in two cities of Turkey



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## Objectives

- The prevalence of the diabetes mellitus is rapidly increasing particularly in developing countries. For effective management of diabetes, patients must be actively involved in their care.
- The aim of the study was to assess the knowledge and self-care practices and contribution of the education to this knowledge level and glycemic control.

## Methods

- We formed patients groups consisting of 15 to 30 diabetic patients.
- Firstly, patients surveyed diabetes self-care knowledge questionnaire (DSCKQ-30). Later, a standard power point presentation about diabetes self-management was made to patients.
- Then, patients surveyed DSCKQ-30 again. All patients were invited to hospital to measure control HBA1c level 3 months later.

## Results

- Of the total 364 participants 62.9% (n= 229) were females.
- Significant increase in percent of correct response was determined in all components between before and after education.
- There was a significant decline of 1.1 in HBA1c levels after 3 months of education (p<0.001).
- Married or active working patients had better understand the educations of diabetes and had higher knowledge of self-care management regardless of the their level of education or income.

## Conclusions

- Education of diabetes can significantly improve knowledge of self care management and can help achieving glycemic control.
- Continuing education on self care management and complications is crucial and this should be accompanied by a regular assessment of their diabetic knowledge.

**Table-1:** Demographic and clinical characteristics of the study population (n=364)

Variables		
Age (year), mean ± SD (range)		53.3 ± 12.3 (18-83)
Weight (kg), mean ± SD		81.5 ± 15.5
Height (cm), mean ± SD		162.8 ± 8.9
BMI, n(%)		
	<18.5	1 (0.3)
	18.5 – 25	61 (16.9)
	25 – 30	107 (29.5)
	30 - 40	167 (50)
	>40	24 (6.5)
Gender, n(%)		
	Male	135 (37.1)
	Female	229 (62.9)
Education, n(%)		
	Illiterate	51 (14)
	Literate	23 (6.3)
	Primary school	200 (55)
	High school	48 (13.2)
	University	42 (11.5)
Marital status, n(%)		
	Single	19 (5.2)
	Married	311 (85.5)
	Widowed	19 (5.2)
	Divorced	15 (4.1)
Occupation, n(%)		
	Housewife	184 (50.5)
	Working	64 (17.6)
	Retired	112 (30.8)
Social Status, n(%)		
	Single	18 (5)
	With family	342 (94.7)
Monthly income, n(%)		
	Low	75 (20.7)
	Middle	282 (78)
	High	5 (1.4)
Alcohol intake, n(%)		
	No	352 (97)
	Yes	10 (2.8)
Current smoke, n(%)		
	No	309 (85.4)
	Yes	52 (14.4)
Family history of diabetes, n(%)		
	Yes	226 (62.8)
	No	134 (37.2)
Type of diabetes, n(%)		
	Type 1	29 (8)
	Type 2	329 (91.6)
Duration of diabetes (month), mean ±SD (range)		94.4 ± 91 (1-480)
Medication, n(%)		
	Oral antidiabetics	116 (32.2)
	Insulin	84 (23.3)
	Oral antidiabetics + insulin	160 (44.4)
Hemoglobin A1c, mean ± SD (range)		
	On admission	8.8 ± 2.1 (4.7-15.5)
	Three months later	7.7 ± 1.5 (5.4-11.9)
Diabetic complications and comorbidities, n(%)		
	Chronic renal failure	15 (4.1)
	Retinopathy	49 (13.5)
	Diabetic foot	22 (6)
	Coronary artery disease	47 (13)
	Cerebro vascular disease	5 (1.5)
	Hypertension	145 (40)
	Thyroid disease	79 (22)

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