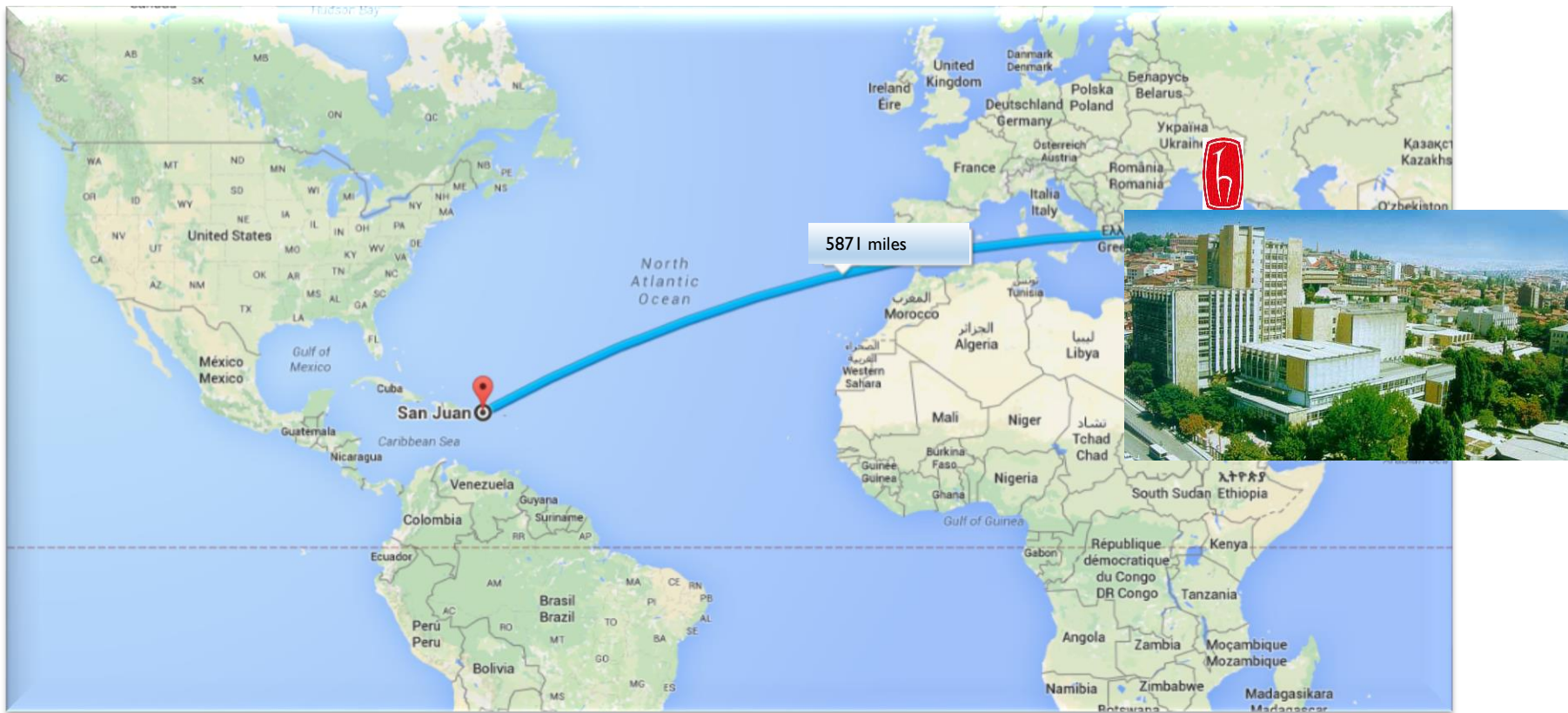# Elderly Diabetes Patients` Attitudes and Beliefs about Health and Illness

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No financial disclosures

Turkey
Hacettepe University

Outline

✓ Importance of the Problem

✓ Study Aim

✓ Methods

✓ Results

✓ Conclusion

✓ Relevance to clinical practice

Importance of the Problem

Prevention of metabolic complications and treatment for cardiovascular risk factors are the main aims of the care and treatment of older diabetic patients.
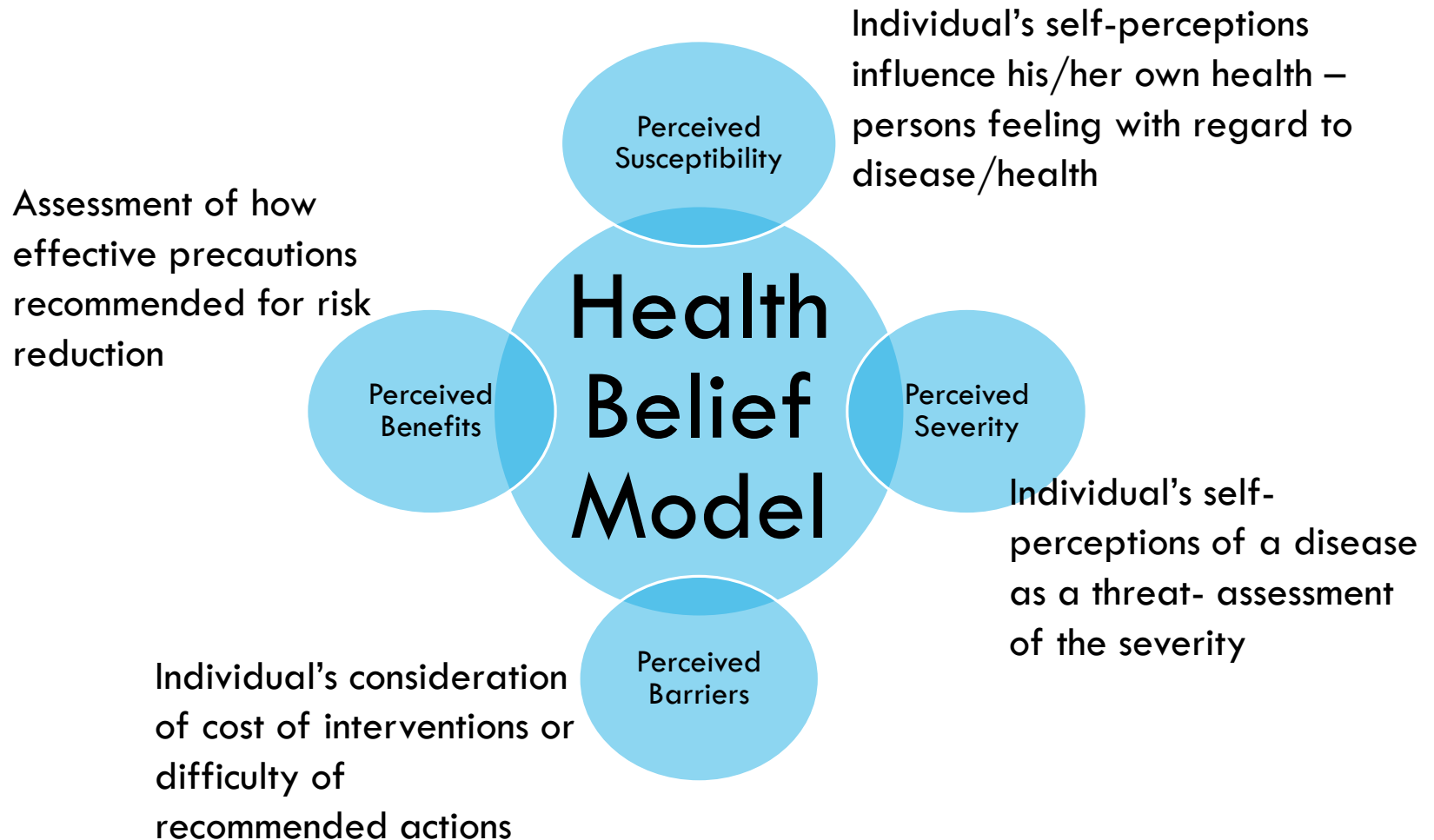

World Health Organization, 2010
TurkStat, 2013

Importance of the Problem

For effective management of diabetes, it is important and crucial to understand the beliefs of older diabetic patients in relation to differences in living with the disease and facing the related problems.

Health Belief Model

Perceived Susceptibility

Individual's self-perceptions influence his/her own health – persons feeling with regard to disease/health

Assessment of how effective precautions recommended for risk reduction

Perceived Benefits

Health Belief Model

Perceived Severity

Individual's self-perceptions of a disease as a threat- assessment of the severity

Individual's consideration of cost of interventions or difficulty of recommended actions

Perceived Barriers

Study Aim

The aim of the study was to determine the attitudes and

beliefs about illness and health of older diabetic patients.

Methods

✓ Study was conducted as a descriptive study in geriatric outpatient clinic of a university hospital in Turkey between 16 July 2012–28 September 2012

✓ Inclusion criteria for participation
  ✓ Aging 65 years or older
  ✓ Diagnosis of type 2 diabetes for more than one year
  ✓ Ability to communicate
  ✓ Willingness to participate

✓ Sample included 70 diabetic patients aged 65 and above

✓ Sample size determined with power analysis (90% power, 5% level of significance and 0.40 effect size)

Methods

✓ Socio-Demographic Form

   ✓ Sociodemographic characteristics (9 questions)

   ✓ Disease characteristics and management (21 questions)

✓ Health Belief Model Scale

   ✓ Perceived susceptibility (5 items)

   ✓ Perceived severity (3 items)

   ✓ Perceived benefits (7 items)

   ✓ Perceived barriers (11 items)

   ✓ Recommended health-related activities (10 items)

✓ Total score of **four or above indicates high (positive)** health beliefs, and a score **lower than four indicates low (negative) health** beliefs

Methods

- ✓ Study was approved by universities ethical committee

- ✓ Written consent was obtained from patients

- ✓ Data analyzed with descriptive statistics, Mann-Whitney U test, t-test, Kruskal-Wallis test, Welch variance analysis, and Spearman correlation
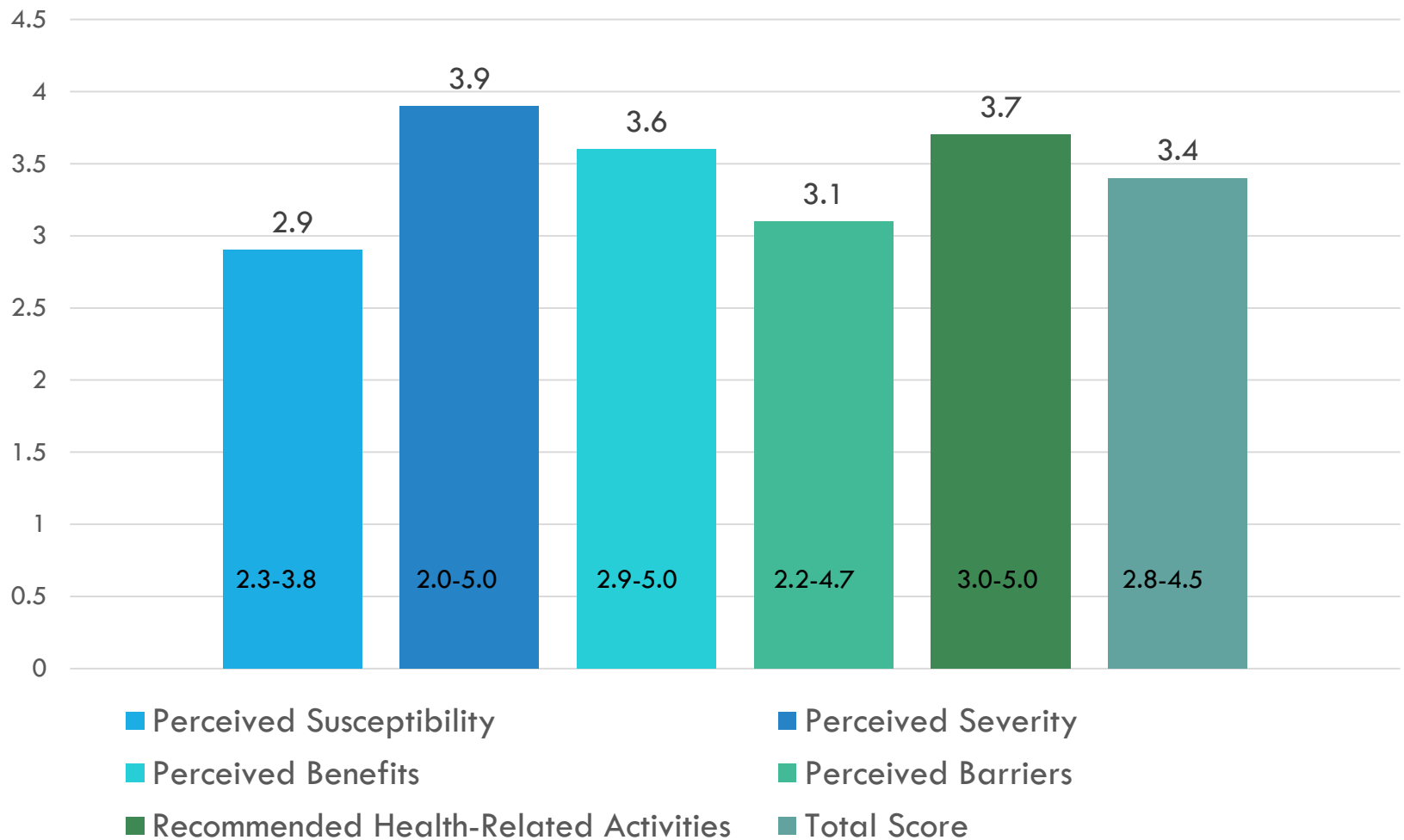
Results

Socio-Economic Characteristics	
Age	Mean age 71.95 (min 65, max 85)
Gender	60% women
Marital Status	67.1% married
Educational Background	41.4% primary school
Employment Status	47.1% worked in the past
Economic Status	77.1% middle income level
Household Members	31.4% lived with family/spouse

Results

Diabetes Characteristics	
Duration	13.11years (min 1, max 34)
Diagnosis	71.4% incidentally diagnosis
Treatment	54.3% oral antidiabetics & diet
Treatment Adherence	77.1% moderate treatment adherence 52.9% moderate medical nutrition adherence
Comorbidity	87.1% Hypertension, 58.6% hyperlipidemia
Management	32.9% smoked, 55.7% didn't exercise 70% had regular blood glucose measurement
Complications- acute	22.9% hyperglycemia 14.3% hypoglycemia
Complications- chronic	22.9% retinopathy, 18.6% neuropathy 5.7% nephropathy, 2.9% foot injuries

Results

Health Belief Model Scale Scores

■ Perceived Susceptibility	■ Perceived Severity
■ Perceived Benefits	■ Perceived Barriers
■ Recommended Health-Related Activities	■ Total Score

Sociodemographic Characteristics & Health Belief Scale Scores

Variable (n)	Susceptibility		Seriousness		Benefits		Barriers		Recommended health related action		Total Score	
	± SS	Analyze	± SS	Analyze	± SS	Analyze	± SS	Analyze	± SS	Analyze	± SS	Analyze
Age												
65-70 (30)	3.0± 0.4	z: -1.002 p: .317	4.1± 0.4	z:-2.375 p: . 018	3.6 ± 0.4	t: 1.041 p:.302	3.1 ± 0.5	t:1.246 p:.217	3.8 ± 0.5	z: -1.375 p: 0.169	3.5± 0.4	t:1.649 p:.104
71-85 (40)	2.9± 0.3		3.8 ±0.6		3.5 ± 0.4		3.0 ± 0.5		3.6 ± 0.4		3.4± 0.4	
Gender												
Female (42)	2.9± 0.3	z: - 0.515 p: .607	3.8 ± 0.5	z:- 1.716 p: .086	3.5 ± 0.4	z:-0.668 p:.504	3.0 ± 0.5	z:-1.109 p:.267	3.6 ± 0.4	z:-0.489 p:.625	3.4 ±0.4	z: - 1.260 p:.208
Male (28)	3.0± 0.4		4.0 ±0.6		3.6 ± 0.5		3.2 ± 0.6		3.7 ± 0.5		3.5 ±0.4	
Educational Background												
Literate (18)	2.7 ±0.3	X²:11.687 p:.003	3.7 ±0.4	X²:11.178 p:.004	3.5 ± 0.3	X²:4.824 p:.090	2.9 ± 0.4	F:2.877 p:.630	3.6 ± 0.3	F: 1.359 p:.264	3.3 ±0.3	X²:9.889 p:.007
Primary school (37)	2.9 ±0.4		3.9 ±0.6		3.5 ± 0.5		3.1 ± 0.5		3.7 ± 0.5		3.4 ±0.4	
High school and university(15)	3.2 ±0.4		4.3 ±0.3		3.8 ± 0.3		3.3 ± 0.6		3.8 ± 0.4		3.6 ±0.3	
Employment Status												
Unemployed before (37)	2.9 ±0.3	z: -0.939 p:.348	3.8 ±0.5	z: -2.459 p:.014	3.5 ± 0.4	z:-1.323 p:.186	3.0 ± 0.5	t:-1.642 p:.105	3.6 ± 0.4	t: -1.513 p:.135	3.3 ±0.3	z:-2.001 p:.045
Employed before (33)	3.0 ±0.4		4.0 ±0.6		3.7 ± 0.5		3.1 ± 0.6		3.8 ± 0.5		3.5 ±0.4	
Economic Status												
Very good/ Good (14)	3.0 ±0.3	t:1.103 p:.274	4.0 ±0.5	z:-0.322 p:.747	3.7 ± 0.5	t:1.205 p:.232	3.4 ± 0.6	t: 2.449 p:.017	3.9 ± 0.5	z:-1.568 p:.117	3.6 ±0.4	z:-1.939 p:052
Middle / Low (56)	2.9 ±0.4		3.9 ±0.5		3.6 ± 0.4		3.0 ± 0.5		3.6 ± 0.5		3.4 ±0.4	

Disease Characteristics & Health Belief Scale Scores

Variable (n)	Susceptibility		Seriousness		Benefits		Barriers		Recommended health related action		Total Score	
	± SS	Analyze	± SS	Analyze	± SS	Analyze	± SS	Analyze	± SS	Analyze	± SS	Analyze
Diagnosis of Diabetes												
Incidentally (50)	2.9 ±0.4	z: -0.352	3.9 ±0.5	z: -0.340	3.6 ± 0.4	z:-1.087	3.1 ± 0.5	z:-1.497	3.7 ± 0.5	Z: -1.401	3.5 ±0.4	z: -1.450
Suspiciously (20)	2.9 ±0.4	p:.725	4.0 ±0.5	p: .734	3.5 ± 0.4	p:.277	3.0 ± 0.6	p: .134	3.6 ± 0.4	p: .161	3.3 ±0.4	p:147
Duration of Disease												
1-5 years (20)	2.9±0.4	X²:0.137	3.9±0.5	X²: 2.190	3.5±0.4	F: 0.704	3.0±0.4	X²:1.671	3.5±0.5	X²:6.006	3.3±0.3	X²: 2.827
6-10 years (16)	2.9±0.3	p: .934	4.1±0.4	p:.334	3.6±0.4	p:.498	3.1±0.5	p:.434	3.8±0.4	p:.050	3.5±0.3	p:243
≥11 years (34)	2.9±0.4		3.8±0.6		3.6±0.5		3.2±0.6		3.7±0.5		3.5±0.4	
Treatment Adherence												
Good (6)	3.0± 0.3	X²: 2.057	3.9 ±0.6	X²: 0.165	3.6 ± 0.4	X²:4.523	3.1 ± 0.4	X²:2.233	3.8 ± 0.2	X²:7.822	3.5 ±0.3	X²: 3.384
Middle (54)	2.9 ±0.4	p:.358	3.9 ±0.5	p:.921	3.6 ± 0.4	p:.104	3.1 ± 0.6	p:.327	3.7 ± 0.5	p:.020	3.5 ±0.4	p:.184
Low (10)	3.0 ±0.4		3.8 ±0.8		3.3 ± 0.3		2.8 ± 0.4		3.4 ± 0.3		3.2 ±0.3	
Medical Nutrition Therapy Adherence												
Good (8)	3.2 ±0.3	X²:11.379	3.8 ±0.6	X²:1.360	3.8 ± 0.3	X²:6.695	3.3 ± 0.3	X²:8.609	3.9 ± 0.2	X²:7.220	3.6 ±0.3	X²: 5.156
Middle (37)	2.8 ±0.4	p:.003	3.8 ±0.5	p:.507	3.6 ± 0.5	p:.035	3.1 ± 0.6	p:.014	3.8 ± 0.6	p:.027	3.5 ±0.4	p:.076
Low (25)	3.0 ±0.4		4.0 ±0.6		3.4 ± 0.3		2.9 ± 0.4		3.5 ± 0.3		3.3 ±0.3	
Blood Glucose Measurement												
Yes (49)	3.0 ±0.4	z:-0.806	4.0 ±0.5	Z: -1.594	3.6 ± 0.4	Z: -0.487	3.2 ± 0.6	Z: -2.378	3.7 ± 0.5	Z: -2.194	3.5 ±0.4	z:-2.090
No (21)	2.9 ±0.4	p:.420	3.7 ±0.6	p:.111	3.6 ±0.5	p: .626	2.9 ±0.4	p:.017	3.5 ± 0.4	p:.028	3.3 ±0.3	p:.037
Exercise												
Yes (31)	3.0 ±0.4	Z: -1.621	4.1 ± 0.4	z:-2.267	3.8 ± 0.4	z:-3.379	3.2 ± 0.6	Z: -2.241	3.8 ± 0.5	z:-2.370	3.6 ± 0.4	Z: -3.023
No (39)	2.9 ±0.3	p:.105	3.8 ±0.6	p:.023	3.4 ± 0.4	p:.001	3.0 ± 0.5	p:.025	3.6 ± 0.4	p:.018	3.3 ±0.3	p:.003
Need for further education												
Needing (18)	2.9±0.3	z:-0.213	4.0±0.4	z:-0.211	3.8±0.5	Z: -1.995	3.2±0.7	Z: -0.459	4.0±0.6	z:-2.727	3.6±0.5	z:-1.701
Not needing (52)	2.9±0.4	p:.831	3.9±0.6	p:.833	3.5±0.4	p:.046	3.0±0.4	p: 646	3.6±0.4	p: 006	3.4±0.3	p: 089

Conclusion

✓ With advanced age, attitudes and beliefs about health and illness become negative and the perceived severity of illness decreases.

✓ Patients who were female, aged 70 and older, with low education and low economic status, with poor adherence to treatment and medical nutrition therapy, and need diabetes-related education had a negative health belief and were found to be particularly at risk.

Relevance to Clinical Practice

The results of this study could help

- ✓ In planning of individual assessments of older adults

- ✓ The development of educational activities to support good diabetes management

- ✓ The prevention of complications, the enhancement of treatment adherence and

- ✓ The management of factors influencing health behaviors.

THANKS FOR KIND
ATTENTION & INTEREST

Nursing, which provides job opportunities in various fields both in our country and in the world, is one of the seven occupational groups recognized to have the right to provide professional services by European Union countries. The Nursing Department, which offered education within the Faculty of Health Sciences since 2007, became a Faculty of Nursing in 2012.

Our undergraduate program aims at helping students to give nursing care in line with changing individual and social needs as well as providing students with the knowledge, skill and understanding necessary for nursing education, management and research fields, and ensuring that students can use the knowledge they have gained in order to protect, improve and preserve health effectively. Students start their education with a preparatory program of English and pursue it in our faculty where the medium of instruction is 30% English. They graduate from our faculty by assuming the title of "nurse" after fulfilling a semi-term internship program in their senior year.

Our Faculty offers undergraduate and graduate programs in eight departments. As well as having in-class theoretical courses, and doing skill and simulation laboratory practices, all of our students receive applied training at establishments that give protective and medical health service.

Our graduates can be employed as staff nurse, charge nurse, nurse consultants, clinical nurse specialists, and advisor at state and private healthcare organizations giving protective, medical and rehabilitative service at national and international level; or as an instructor and director at nursing schools.

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Photo: Sıhhiye Campus, Simulation Laboratory of Faculty of Nursing

Hacettepe University, Faculty of Nursing

Hacettepe, an international and a leading university