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## Examination of attitudes, perceptions and behaviours of the elderly with diabetes based on the health belief model

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### Abstract

This study aims to determine the attitudes, perceptions and behaviours of the elderly with diabetes and its theoretical structure was based on the Health Belief Model. The cross-sectional study was carried out with 82 elderly volunteers. The data were collected with a descriptive and semi-structured form. Individuals' level of following-up blood glucose and ability to monitor other early signs and symptoms was found to be moderate and elderly expressed 'activity loss' and 'changes in body image of considering barriers'. It can be said that elderly compliance to the treatment was good and that the beliefs about disease are affect to cope with the disease, the seriousness, the behaviours and the perceived benefit.

**Keywords:** Elderly, diabetes mellitus, beliefs, health belief model.

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## **1. Introduction**

Although diabetes which individually and socially affects the health and reduces the quality of life is considered as a disease of developed countries, it recently emerges as a highly important and overcosting disease in the health system of developing countries (ADA, 2017; Yildirim, 2017).

Health belief model (HBM) is used to reveal the reasons for showing or not showing health-related behaviours, the behaviours to be protected from the disease, the motivating factors and the behaviours of individuals related to care and treatment (Harvey & Lawson, 2009; Hayden, 2009; Heiss, 2013).

It is important to determine the health behaviours of the individual and to organise the required trainings for the change of behaviours. In this scope, the research was conducted in order to determine the attitudes, perceptions and behaviours of the elderly diabetic individuals.

The theoretical structure of the research was based on the Health Belief Model developed by Champion in 1984 (Champion & Skinner, 2008). The questions of the research were as follows:

- How are the positive and negative attitudes of elderly diabetic individuals according to the HBM?
- How is the distribution of elderly diabetic individuals in terms of socio-demographic, disease-related and cultural variables according to the HBM?

## **2. Data and methodology**

### **2.1. Sample**

This cross-sectional study was conducted with 82 elderly individuals aged 65 years and over among 250 elderly diabetic individuals who agreed to participate in the study in Izmir in 2018. Sample selection was not made for the research (participation rate 32.8%).

### **2.2. Data collection tools**

The data were collected using the questionnaire which was prepared as a data collection tool consisting of nine questions about sociodemographic characteristics, nine questions for medical history and the semi-structured question form (15 closed-ended and 10 open-ended questions). Researchers defined the individual and psychosocial characteristics, knowledge levels, previous experiences, medical histories, behaviours for the protection from the disease and level of participation in treatment.

### **2.3. Data collection and procedure**

Prior to data collection, pilot interviews were held with four people for the semi-structured interview form and changes were made to the interview form following these interviews. The data were collected through face-to-face interviews with elderly individuals and took the notes for open-ended questions by researchers nearly 30–45 minutes.

### **2.4. Ethical construction**

Written ethical approval was obtained from the University non-interventional research ethics committee and the verbal consents were obtained from elderly diabetic individuals interviewed in order to conduct the research.

## **2.5. Analyses of the data**

The data obtained were evaluated in the SPSS 17.0 program and the open-ended questions data were converted a written document within 15 days and were assessed descriptively. In the analysis of the research, number, percentage, average, median, chi-square significance test and one-way analysis of variance were used.

## **3. Findings**

### **3.1. Behaviour specific perceptions**

#### **3.1.1. Individual perception (Perception of seriousness and perceived sensitivity)**

When the general health perceptions of the individuals were evaluated, of the individuals, 40.2% stated that they had a good level and 48.8% stated that they had a moderate level. There was no statistically significant relationship determined between the age group of individuals and general health ( $X^2 = 0.82$ ;  $p > 0.05$ ). Also there was no statistically significant change ( $X^2 = 5.89$ ;  $p > 0.05$ ) found between the duration of treatment and the general health perception. In total, 20.7% of the individuals indicated that they had not noticed the symptoms of the disease before and 28% of them stated that they had noticed at a low level. In total, 95.1% had religious beliefs and 28% performed religious practices (3 people performed prayer, 13 people prayed and 7 people performed both).

#### **3.1.2. Benefit perception**

There was no significant relationship determined between the age groups that are old age ( $X = 6.2$ ) and advanced age ( $X = 6.6$ ) and their average ability to follow-up ( $F = 0.84$ ;  $p = 0.36$ ).

#### **3.1.3. Behaviour perception**

In total, 20 individuals stated that they experienced 'activity loss', 14 expressed 'change in the body image', 5 expressed 'increase in dependence on others', 3 expressed 'change in the intrafamilial role perception', 5 expressed 'disarrangement in the family', 8 expressed 'the burden of the disease in economical aspect'.

### **3.2. Activators**

When the individuals were asked to describe what their strengths were, 26 (40.6%) answered as 'willed, enduring', 65% of the patients stated that they shared their feelings with others and 80% stated that they forgave others when necessary.

## **4. Conclusion**

Having a good level of general health perception is important to maintain the treatment of the disease. Considering the elderly group as a priority due to the negative effects of age on health belief, determining the beliefs and attitudes in order to create behavioural change in the elderly people, having motivational interviews to identify perceptions underlying health attitudes and behaviours in order to develop positive health beliefs, and arrangement of individualised training programmes and care to correct the deficiencies about the elderly people's needs can be suggested.

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