

Research: Education and Psychological Aspects

Association between health-related quality of life and impaired glucose metabolism in Iran: the Qazvin Metabolic Diseases Study

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Abstract

Aim To evaluate the association between health-related quality of life and glucose metabolism status in a study population in Qazvin, Iran.

Methods This cross-sectional study was conducted in 1044 people (aged 20–78 years old) between September 2010 and April 2011 in Qazvin, Iran. An oral glucose tolerance test was performed for each participant who had never been diagnosed with diabetes. Participants were characterized as having normal glucose metabolism, pre-diabetes or diabetes according to American Diabetes Association criteria. The short-form 36 questionnaire was used to measure quality of life. Data were analysed using a chi-squared test, ANOVA and ANCOVA.

Results A total of 530 (51.7%) of the participants were women, and 24.1 and 11.6% of the participants were categorized as having prediabetes and diabetes mellitus, respectively. Except for the role emotional domain, there was a gradual decrease in the mean scores of every domain of the short-form 36 scale across the three study groups. The mean scores in the physical domains were significantly different among the participants with normal glucose metabolism and those with diabetes. After adding age as covariate, there were no significant differences between the categories in any of the domains.

Conclusion There is no association between quality of life domains and glucose metabolism status in Iranian subjects. More longitudinal studies are necessary to investigate the natural history of pre-diabetes, diabetes and quality of life.

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Introduction

Health-related quality of life is an important factor in chronic diseases where a cure is unlikely. Chronic disease may result in greater concern about function and well-being than the physiological measures that healthcare providers consider useful [1].

The prevalence of diabetes mellitus has increased so rapidly worldwide that it has reached epidemic proportions. [2] It is a major cause of morbidity and mortality, and has been associated with a poor quality of life [3]. Pre-diabetes is a state of abnormal glucose homeostasis which presents as impaired fasting glucose, impaired glucose tolerance, or both [4]. Diabetologists agree that pre-diabetes should be termed a disease [5]. Impaired glucose metabolism causes

macrovascular diseases and Type 2 diabetes, which contributes to microvascular disease [5].

Although diabetes has an obvious impact on health-related quality of life, the association between pre-diabetes and change in well-being and health-related quality of life needs further evaluation [6]. It is unclear whether quality of life is diminished at or before the onset of diabetes, among those with pre-diabetes [3]. This stimulated our interest in examining the association between health-related quality of life and glucose metabolism status in Qazvin, Iran.

Subjects and methods

This cross-sectional study was conducted in 1107 people between September 2010 and April 2011 in Qazvin, which is located 150 km northwest of Tehran, Iran. The research project was approved by the medical research ethics committee of Qazvin University of Medical Sciences.

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