







Omid Khosravizadeh¹ , Bahman Ahadinezhad¹ , Aisa Maleki^{2, 3} , Ailar Hashtroodi² ,
Ali Moqadam² , Hamideh Kamali² 

¹Social Determinants of Health Research Center, Research Institute for Prevention of Non-Communicable Diseases, Qazvin University of Medical Sciences, Qazvin, Iran

²Student Research Committee, Qazvin University of Medical Sciences, Qazvin, Iran

³Health Products Safety Research Center, Qazvin University of Medical Sciences, Qazvin, Iran

Understanding Medication-Related Belief in Patients with Type 2 Diabetes: a Meta-Analytic Review

ABSTRACT

Background: The medication belief and appropriate and on-time medication usage are crucial determinants of diabetes control. The present systematic review has been conducted to examine the status of the medication beliefs of patients with type 2 diabetes based on a meta-analysis.

Materials and methods: This study is a systematic review based on a meta-analysis conducted in 2021. **Keywords** "Medication belief", "BMQ (Belief in Medication Questionnaire)", "patients with type 2 diabetes", "diabetes mellitus" were searched in Google Scholar, PubMed, Scopus, Web of Science, Science direct, Magiran, SID, and Irandoc database from 2010 to 2021. The pooled score of medication belief and its dimensions were estimated through a random-effects meta-analysis using STATA 15. Also, heterogeneity across the articles was determined with the I^2 statistic.

Results: Out of 584 articles, 8 studies were selected and analyzed. Based on estimates obtained from the random effects method, the pooled score of medication belief was obtained at 2.877 (95% CI: 2.22–3.53).

Also, the pooled scores of specific necessity, specific concern, general harm and general overuse were calculated at 3.60 (95% CI: 2.92–4.06), 3.02 (95% CI: 2.19–3.85), 2.26 (95% CI: 1.50–3.02) and 2.54 (95% CI: 1.96–3.12) respectively.

Conclusions: Health policymakers and economists need to take steps to increase the health literacy of patients with type 2 diabetes and improve the medication belief dimensions to reduce the disease costs to provide a better quality of life for patients with type 2 diabetes. Various programs are underway in developed countries. Public education about the side effects of diabetes drugs, narcotics, and drug dependence reduces patients' worries and anxieties, which in turn reduces their anxious thoughts and brings relief to patients. (Clin Diabetol 2022, 11; 3: 200–209)

Keywords: medication belief model, patients with type 2 diabetes, BMQ, systematic review, meta-analysis

Introduction

Worldwide, one of the biggest challenges for health systems is the rising rate of chronic diseases. Chronic diseases affect most or all of a person's life. Cardiovascular diseases, cancer, AIDS, chronic respiratory diseases, gastrointestinal diseases, diabetes, neurocognitive disorders, and autoimmune diseases are some examples [1]. Diabetes is a metabolic disorder that causes high blood sugar levels [2] People with type 1 diabetes are forced to inject insulin or use an insulin

Address for correspondence:

Aisa Maleki

Student Research Committee,

Qazvin University of Medical Sciences, Qazvin, Iran

phone: +98 9223695917

e-mail: AisaMalekii@gmail.com

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