

**Abstract****Original Article****Perceptions of Pain and Diabetes in two very Different Groups of Patients in Greece****Maria Kontopanou**

Psychologist, Graduate Student "Treating pain," Medical School, University of Ioannina, Greece

**Dimitris Damigos, PhD**

Assistant Professor of Medical Psychology, Medical School, University of Ioannina, Greece

**Maria Andrikoula, PhD**

Endocrinologist, Private Health Sector, Agrinion, Greece

**Agathocles Tsatsoulis, PhD**

Professor of Medicine/Endocrinology, Department of Endocrinology, University of Ioannina, Greece

**Correspondence:** Kontopanou Maria, P.Marneli st. 33-35, GR 45333, Ioannina, Greece E-mail: maria.21984@hotmail.com**Abstract**

**Background:** Over the past two centuries, type 2 diabetes has been proven to be a complex, heterogenous disorder with a dramatically increasing prevalence worldwide. Early use of insulin in the management of poorly controlled diabetes has been recommended to prevent and reduce the long term diabetes complications. However, there are various factors delaying insulin initiation caused by healthcare providers, as well as by patients themselves. One of the main barriers is psychological insulin resistance among patients and healthcare providers. As Roma community is one of the most vulnerable social groups around the world, and their health status is considered to be disproportionately burdened compared with non-Roma in many European countries, the purpose of this study is to examine the different concepts regarding diabetes and pain and the psychological resistance to insulin use between Roma and non-Roma patients, in order to clarify the factors that create barriers to insulin use in poorly controlled diabetes.

**Methods:** We included 100 patients in our study divided into two groups: 50 of them belonged to Roma community (aged 40-60 years old) and 50 of them were patients of Greek origin (aged 50-70 years old). Between the two groups, there were large statistical differences in various demographics, especially smoking ( $p = 0.000$ ), and level of education ( $p = 0.000$ ). Roma people show a higher incidence of hyperlipidemia, hypertension and problems associated with uncontrolled type 2 diabetes. When asked if they are followed up by a doctor, most Roma patients gave a negative answer, while Greek patients answered yes ( $p = 0.000$ ), most of them preferring a private physician, in contrast to Roma patients who preferred the hospital's outpatient department ( $p = 0.000$ ).

**Results:** Regarding the substantive responses to the questionnaires, there are large variations in scores. In the quality of life questionnaire there were few statistical significant differences between the two groups of patients. The BIT questionnaire was in its entirety different between the two ethnic groups and with some differences between genders as well. Comparing the overall scores of questionnaires between the two groups, we conclude that there are big differences with the Roma having always higher (worse) scores in the quality of life questionnaire, and especially regarding the barriers to insulin use.

**Conclusions:** Thus, there are large differences of diabetes management with insulin between the two groups of patients, since Roma patients feel that their diabetes deeply affect their quality of life.

**Scientific impact and future research:** Physicians could address their concerns aiming to modify their patients' misconceptions towards insulin therapy, especially for ethnic groups, such as Roma, whose promotion of health is one of the main priorities of the European Union.

**Keywords:** Diabetes, pain, psychological insulin resistance, Roma, non-Roma.