

NONCOMPLIANCE IN PATIENTS WITH TYPE 2 DIABETES ENROLLED IN LOCAL DIABETES EDUCATION PROGRAM

The objective of this research project was to identify the factors that lead to health plan noncompliance in people with diabetes. Diabetes has been increasing over the past decade in Laredo, Texas, and patient compliance with physician's orders is critical to the control of type 2 diabetes. Compliance can help prevent further medical complications for the patient. This study was conducted to investigate the association between noncompliance, social and economic status, and access to health care in a group of diabetics in Laredo. In this study we hoped to find that culturally influenced behavior was closely correlated to noncompliance. Fifty patients of the La Familia diabetes program were surveyed in order to acquire information on how well they were following their health care plan. Diet, medication, physical activity of the patient along with demographics and compliance to a health care plan were analyzed in the study.

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INTRODUCTION

With more than 250,000 inhabitants in Laredo, Texas, 97% of its population is Hispanic and Hispanics are more likely to have diabetes than those from other ethnic backgrounds. Diabetes mellitus is a metabolic disorder characterized by abnormal glucose levels due to the inability of the pancreas to produce insulin. The three kinds of diabetes, type 1, type 2, and gestational, have similar signs, symptoms and consequences but different causes and population distributions. Type 1 diabetes is characterized as the autoimmune destruction of the pancreatic beta cells that are responsible for the production of insulin. Type 2 diabetes characteristics are tissue-wide insulin resistance that may lead to loss of beta cell function. Similar to type 2 diabetes, gestational diabetes involves hormonally induced insulin resistance that occurs during pregnancy. Type 1 and type 2 are chronic and incurable diseases unlike gestational diabetes that is resolved in delivery. Type 2 diabetes has a wide range of complications that can lead to: renal failure; neuropathy; retinopathy; heart disease; and amputations resulting from poor healing. Hispanics/Latino Americans are 1.7 times more likely to be diagnosed with diabetes than non-Hispanic Whites of a similar age. The city of Laredo is located in Webb County, which is the number one county in Texas for morbidity and mortality rates due to diabetes.

This study attempted to determine the association between health plan compliance and the effects on the target population. Attitude, understanding and behaviors were found directly related to the outcomes, after taking

into account the contributing factors such as socioeconomic status and or cultural background. The City of Laredo Health Department offers an assistance program, La Familia, for people with diabetes, which includes education, primary health care, and appropriate followup. Data extracted from this program were used in this study.

METHODS

Identifying the factors that cause noncompliance to a recommended health care plan and finding alternatives to lessen noncompliance were our primary goals. Fifty patients of the La Familia diabetes program were surveyed. The survey focused on diet, medication, physical activity and behavior. The survey was conducted on a one to one basis with patients who had received primary care in a clinic.

RESULTS

Of the 50 study participants, 70% were women and 42% were between 51 and 60 years of age. Education levels were equally distributed between elementary and high school levels. Twenty-four percent of the population was sedentary or did not participate in a physical activity due to climate and high environmental temperatures. Nineteen percent did not have enough time for physical activities and 14% said that taking care of children limited time available. Fifteen percent of the population claimed no access to a gym or a suitable exercise environment.

Whereas all were prescribed a special diet, only 68% claimed to follow the diet. Thirty-eight percent of the group

said that following a special diet was difficult due to lack of control over food portions. Fifty-two percent of the responders claimed their diet consisted of both non-fat and fatty foods, and 24% replied they only ate non-fatty foods. Twenty-four percent were not aware of what kind of diet made a difference in the control of type 2 diabetes. Twenty-four percent claimed that they did not have access to healthy snacks. Sixty-two percent of the patients currently on medication as part of their

health care plan took their medication and controlled their diabetes with diet and exercise. Out of the 50 participants, 64% took no insulin because it was not required. Two percent of the study group replied they only took insulin when feeling ill. When asked if they followed the recommendations of their physician, 70% responded sometimes, 10% never, and 20% always. The three main reasons patients gave for responding "sometimes" or "never" were: following a meal plan was difficult;

used natural remedies to treat diabetes; and poor support from family.

DISCUSSION

All the patients in La Familia program in this survey were diagnosed with type 2 diabetes. Based on these findings, and the high rates of type 2 diabetes in the community, a public health intervention and information campaign is needed to change behaviors, culture, and habits.