



Graduation project title/ Idea

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The benefits of the project:

This chapter includes a statistical study of the most important factors influencing diabetes using factor analysis and applying the principal component method to the data relating to the group of patients at the Laila Qassem Health Center

Contents and sections:

Diabetes is a metabolic disorder in which there are high levels of sugar in the blood, a condition called hyperglycemia. Under normal conditions, food is broken down to glucose which then enters the bloodstream and acts as fuel for the body. The pancreas produces a hormone called insulin which helps to carry glucose from the bloodstream into muscle, fat and liver where it can be used as fuel. Diabetics are not able to move this sugar out of the bloodstream because of two primary reasons: 1) their pancreas does not produce enough insulin and/or 2) their cells do not respond normally to insulin, a condition called insulin resistance. This is why people with diabetes have high blood sugar levels.

Basics:

Due to the scientific and technological progress that has occurred in many fields of study, especially in the field of statistical studies and research, which is considered self-evident. The statistical method is not complete unless all its stages and steps are achieved correctly and accurately. One of the most important stages of this method is the data analysis stage. We all know the impact and importance the results of data analysis have on the correctness and accuracy of economic, social and health plans. Diabetes is one of the Problems from side branches Healthy. With regard to this research, factor analysis was used, which is one of the important statistical methods that can be used to study complex phenomena more specifically and in science and other fields. Different life.

References:

- 1 -Archana Niranjana (2004), (A factor analysis methodology for analyzing the factors that contribute to economic development in the state of Tennessee), master theses, university of Tennessee. Nd
- 2- Anderson, T.W. (1984): (An introduction to multivariate statistical analysis), 2 edition, John Wiley & sons, New York.
- 3-Timm, N. (2002): "Applied multivariate statistical analysis", springer texts in statistics, springer-vertage, New York, Berlin Heidelberg.
- 4- <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0002194/>
- 5 - <http://new.dhh.louisiana.gov/index.cfm/page/1233>



Applying the project plan step by step:

- 1-The research was carried out based on a sample size of (150) male and female patients who were randomly selected from among the patients at the Laila Qassem Diabetes Center and based on questionnaire form as the research tool.
- 2-The information was obtained by distributing questionnaire to patients and the results of the analysis were extracted using an automated calculator by relying on readymade statistical software (statistical package for social sciences)
- 3- our main goal in this research is to identify the most important factors affecting diabetes and show the variables that are more important and according to their sequence in terms of their impact on the studied phenomenon, and to conduct the factor analysis method, we have relied on the principle components method, analyzing the correlation matrix of the studied variables