A Study to Assess the Knowledge on Prevention of Diabetes Mellitus among Adults in Dakkilivaripalem, Nellore

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Abstract: Diabetes mellitus is a group of metabolic disease characterized by elevated level of glucose in the blood resulting from defects in insulin secretion, insulin action or both .Normally a certain amount of glucose circulates in the blood. **Objectives:** 1. To assess the knowledge regarding prevention of diabetes mellitus among adults. 2. To find out the association between the knowledge regarding prevention of diabetes mellitus with their selected socio demographic variables. **Material and Methods**: A descriptive research design was used to assess the prevalence of diabetes mellitus among adults. The 50 adults were selected using by non probabilityconvenience sampling technique.**Results and conclusion:** The results reveals that knowledg regarding prevention of Diabetes Mellitus among adults, 15(30%) have B grade, 12(24%) have C grade and 23 (46%) have D grade knowledge. The study concluded that majority of people having D grade knowledge regarding prevention of Diabetes Mellitus as a Community health nurse need to upgrade their knowledge for protecting their health. **Key words: Diabetes Mellitus, Insulin, Prevention, Adults.**

Introduction: Diabetes mellitus is a group of metabolic disease characterized by elevated level of glucose in the blood resulting from defects in insulin secretion, insulin action or both. Normally a certain amount of glucose circulates in the blood. The major source of this glucose is absorption of injected food in the gastrointestinal tract and formation of glucose by the level from food substance.

The incidence of diabetes is increasing day by day. Being a silent killer, it is attacking the young generation secretly that increases the burden of exchequer on the people as well as the government. Two things are common these days- Side effects and Insulin resistance among the people who are taking modern medicines for diabetes treatment. It leads to searching of alternative system of medicine where Ayurveda has greater application and importance. Ayurveda treats diabetes through drugs, diet, Panchakarma and exercise. The management technique for diabetes in Ayurveda is as follows: Exercise (Vyaayam), dietary regulation (Pathya), Panchakarma (bio purification procedures) and Medicines. The condition is known by different names such as Asrava, Prameha and Madhumeha.

This latter condition affect mostly the cells of muscle, fat tissue and result in the condition known as insulin resistance.Type-1 diabetes mellitus result from the pancreas; failure to produce enough insulin. This form was preciously referred to as "Insulin Dependent Diabetes Mellitus [IDDM]"or juvenile

diabetes mellitus. The case is unknown type-2 diabetes mellitus begins with insulin resistance, a condition in which fails to respond to insulin properly. As the disease progress a lack of insulin may also develop this form was previously referred to as "Non Insulin Dependent Diabetes Mellitus [NIDDM]"or adult onset diabetes mellitus. The most common causes are excessive body weight and not enough exercise.

Need for the Study: According to world health organization (WHO) report (2014), 387 million people have diabetes in 2014, and by 2030, 438 million of adult population is expected to have diabetes mellitus and by 2035,592 million populations are expected to have than 80% income countries.

International diabetes federation (2014), report that 62 million Indian are affected by diabetes mellitus and estimate diabetes deaths occur in low and middle shows that nearly 1 million Indian die due to diabetes every year. Additionally a study by the American diabetes association reports that India will be expected greatest increase in people diagnosed with type II D.M by 2030. In 2010, 50.8 million had diabetes, according to international diabetes federation 2011; 62.4 million Indian people had suffered with diabetes. According to Indian diabetes federation the prevalence of D.M is 24% in Andhra Pradesh state and Hyderabad is 17%.

According to clinical and epidemiological research in Andhra Pradesh has no exception. In Andhra Pradesh alone 30 lakhs people suffer from diabetes and Hyderabad is fast emerging on the world map of diabetes. Every 6the person is diabetic in Hyderabad and other metropolitan cities including Delhi, Mumbai and Chennai.

Problem Statement: A Study to Assess the Knowledge Regarding Prevention of Diabetes Mellitus among Adults in Dakkilivaripalem, Nellore.

Objectives:

• To assess the knowledge regarding prevention of diabetes mellitus among adults.

• To find out the association between the level of knowledge regarding prevention of diabetes mellitus among adults in Dakkilivaripalem, Nellore.

Materials and Methods: A quantitative research approach and descriptive research design was used to assess the knowledge regarding prevention of Diabetes Mellitus among Adults in Dakkilivaripalem at Nellore. The sample includes all Adults who are residing in Dakkilivaripalem at Nellore. 50 Adults were selected by using non probability convenience sampling technique. With the help of extensive reviews from various text books, net sources and journals, 30 structured questionnaires were developed to assess the knowledge regarding prevention of Diabetes Mellitus among Adults. Each correct answer was given by score '1' and wrong answer by score '0'. The score interpretation was >85% Excellent knowledge, >75% very good knowledge and >65% good knowledge, >50% Average Knowledge and < 50% Poor Knowledge. The tool was sent to nursing experts for content validity. The reliability of the tool 'r' value was 0.89. The tool was tested for the feasibility by conducting pilot study among 5 Adults. Prior formal permission was obtained from the institutional ethical committee, Narayana Medical College Hospital, Nellore and permission obtained from the village sarpanch. The samples were informed by the investigator about the purpose of the study and the written consent was obtained. The data collection was carried out 2 weeks. Data was collected

by using socio demographic variables and a structured questionnaire was used to measure the knowledge regarding prevention of Diabetes Mellitus. It took 10 - 15 minutes to collect the data from each participant. The data was analyzed and tabulated by using descriptive and inferential statistics based on objectives of the study.

Result and Discussion:

Table No - 1: Frequency and Percentage distribution of Knowledge Regarding Prevention of Diabetes Mellitus among Adults.   (n=50)

Level of knowledge	Frequency (f)	Percentage (%)
B grade	15	30%
C grade	12	24%
D grade	23	46%

Table No - 1: Shows that knowledge regarding prevention of Diabetes Mellitus among adults, 15(30%) have B grade, 12(24%) have C grade and 23(46%) have D grade knowledge.
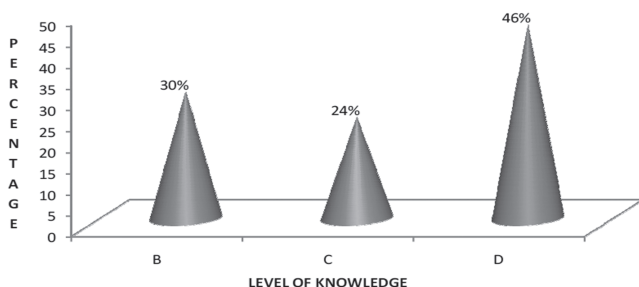

Fig No-1: Percentage distribution of knowledge regarding prevention of Diabetes Mellitus among adults.

Table No - 2: The Mean and standard deviation of level of knowledge regarding prevention of diabetes mellitus among adults   (n=50)

Criteria	Mean	Standard
Level of knowledge	14.9	2.8

Table No-2: Shows that Knowledge Regarding Prevention of Diabetes Mellitus among Adults Mean value is 14.9 with Standard deviation of 2.8.

Association between the level of knowledge regarding prevention of diabetes mellitus among adults.

There is a significant association between the level of knowledge regarding prevention of diabetes mellitus among adults with the socio demographic variables like gender, educational qualification and type of family.

Conclusion: The study concluded that the adults had 'D' grade knowledge regarding prevention of diabetes mellitus. 15(30%) had B grade, 12(24%) had c grade and 23(46%) had D grade knowledge regarding prevention of diabetes mellitus among adults in Dakkilivaripalem, Nellore. There was significant association between level of knowledge regarding prevention of diabetes mellitus among adults with their socio demographic variables like gender, education, type of family, family income, marital status. There was no significant association between levels of knowledge regarding prevention of diabetes mellitus among adults with their socio demographic variables like age, religion, occupation, dietary pattern. As a community health needs to conduct various Awareness health programmes to improve Knowledge on Diabetes Mellitus.

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