

A STUDY TO ASSESS THE PREVALENCE OF DIABETES MELLITUS AMONG VEGETARIAN AND NON-VEGETARIAN AND TO ASSESS THE KNOWLEDGE OF ADULTS REGARDING DIABETES IN A SELECTED RURAL AREA AT THOOTHUKUDI.

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ABSTRACT : Over 30 million have been diagnosed with Diabetes in India. In urban areas it is thought to be 9% and in rural areas prevalence is approximately 3% of the total population. The magnitude of the problem calls for urgent action, so the study was intended to assess the knowledge of adults regarding diabetes and to determine the association with selected demographic variables. Descriptive research design was adopted and the samples were selected by using purposive sampling technique. It was observed that 28.6% of vegetarians had Diabetes and 46.1% of Non-vegetarians had Diabetes. With regard to knowledge 62 % had inadequate knowledge and 12 % had adequate knowledge. The existing knowledge was significantly associated with education and socioeconomic status.

Key words: knowledge, Prevalence, Vegetarian, Non-vegetarian, Diabetes

Introduction

Diabetes Mellitus occurs throughout the world, but is more common in India. As per the international Diabetes federation report of 2015, approximately 60 % of all people with Diabetes live in just three countries, China, India and USA. China stands first with a score of 98.4 million. India stands first with 65 % million. The increase in incidence in developing countries follow the trend of urbanization and life style changes including increasingly sedentary life styles, less physically demanding work and the global nutrition transition, marked by increased intake of foods that are high energy -dense but nutrient poor.

The highest prevalence of diabetes reported by the union ministry and family welfare is that “Kerala” has highest population of people affected with Diabetes. (19.5%) with next Tamilnadu 17.2% (1). Although the Indian urban population has access to reliable screening methods and anti-diabetic medications such health benefits are not often available to the rural population. There is a disproportionate allocation of health resources between urban and rural areas, and in addition poverty in rural areas may be multi-faceted. (4) .

Tamilnadu currently faces an uncertain future in relation to the potential burden that Diabetes may impose upon the state. A study shows that, Diabetes disproportionately affects people of working ages and accounts for Rs 10,000/- Crores in annual health care costs in India. It is our nation's most costly as well as most common disease both in human terms and in economic terms.

Vegetarian diets have advantages in the treatment of Type II Diabetes. At present there are few data on vegetarian diets in Diabetes. The use of whole grain are traditionally processed cereals and legumes has been associated with improved glycemic control in both diabetic and insulin resistant individuals.

A cross sectional study was conducted to assess the increasing prevalence of Diabetes in developing countries. The study was conducted on 1405 individuals with age range of 18 – 97 Years, among rural and urban population. The result showed that 20 % of rural and 4.6% of urban were suffering with diabetes.

A study that examined 8401 adult seventh day Adventists without diabetes at base line found that at after 17 years of follow up, those who consumed meat just once per week had a 29% higher risk of developing diabetes than those who refrained, and this risk increased to 38% of the meat was processed. Lifelong adherence to a vegetarian diet in this population was associated with a 74% reduced risk of developing diabetes compared to a diet that included weekly meat consumption. (5)

Yet despite the incidence of Diabetes with in India, there are no nationwide and few multicentric studies conducted on the prevalence of Diabetes. (2). Moreover, rural people are ignorant about Diabetes, because of less accessibility of media and social communication at the gross root level, and lack of sufficient health care personnel in the rural area. So the investigator felt the need for conducting a research on identifying the prevalence of Diabetes among adults and to assess their knowledge regarding Diabetes

MATERIAL AND METHOD

The study was conducted in a rural area called kulasakaranallur Which is 20 km away from Thoothukudi, Tamilnadu. By following purposive sampling method, the samples were selected and data was collected after obtaining administrative permission from the panchayat president. The tool used in the present study was a structured questionnaire. Subjects not willing to participate were excluded from the study. The data was collected by door to door survey and before data collection the purpose of the study was explained to each subject and oral consent was obtained. After obtaining data, it was analyzed by using Inferential and Differential statistics.

RESULTS

Findings related to prevalence of Diabetes among Vegetarian and Non vegetarian

It was found that 28.6 % of Vegetarian had Diabetes and 46.1% of non-vegetarian had Diabetes.

Findings related to Demographic data

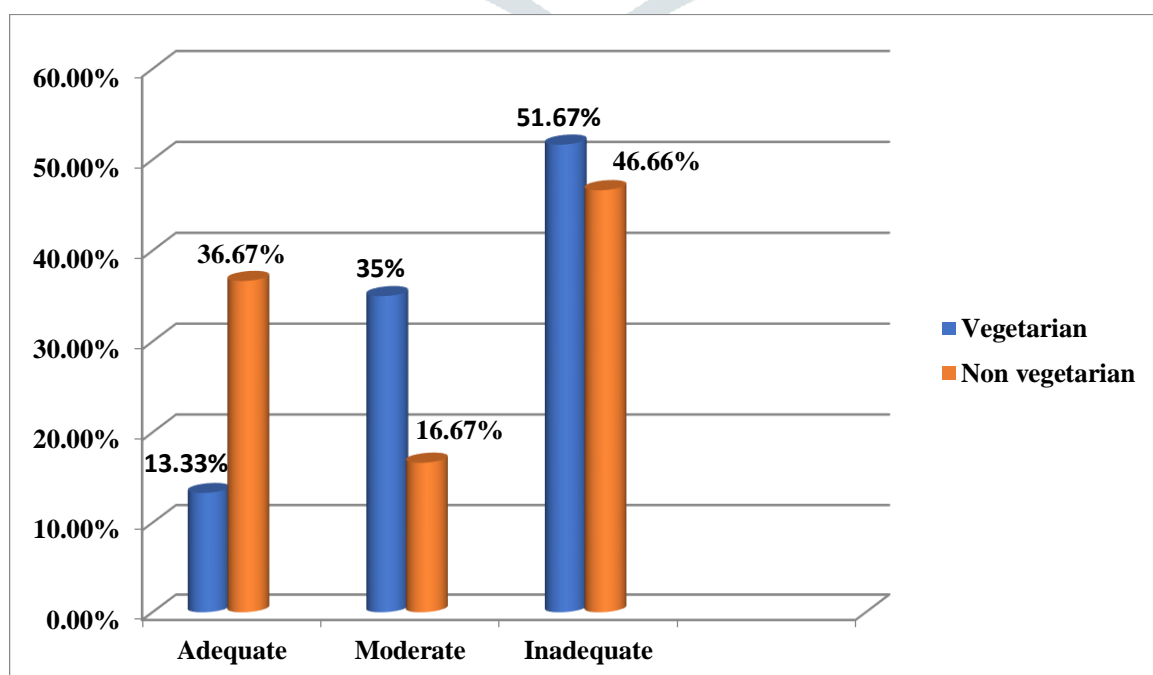
Among vegetarian, 20 – 40 years constitute 41.67%, 41 – 60 years of age constitute 43.63 % and above 60 years 15 %, among non-vegetarian 20 -40 years constitute 53.33 %, 41 –years were 38.33 % and above 60 years were 8.34 %.

Among vegetarian 26.67 % were male population and 73.33 % were females, among non-vegetarian 38.33 % were males and 61.67 % were females.

With regard to education, 41.67 % were literates and 58.33 % were illiterate among vegetarian and 65 % were literates and 35 % were illiterate among non-vegetarian. Among vegetarian 26.67 % were involving themselves in farming and 43.33 % in non-vegetarian.

Most of them were married among vegetarian and non-vegetarian, (ie) 76.67 % and 75 % respectively.

Findings related to knowledge score on Diabetes Mellitus



Findings related to association of knowledge level with selected demographic variables

The study findings revealed that the existing knowledge of both the subjects were significantly associated with education ($X^2 = 8.79$) and socio-economic status ($X^2 = 9.31$, $p < 0.05$) and there was no significant association with age ($X^2 = 0.604$) gender ($X^2 = 1.222$), occupation ($X^2 = 1.08$) and exercise ($X^2 = 2.68$). The level of significance was assessed at 0.05 level.

DISCUSSION

The study findings revealed that prevalence of Diabetes was more among non-vegetarians. This shows that vegetarian diet is most beneficial for diabetes prevention. Though there is technological development, still a group of people are not aware about Diabetes. This study was supported by a study which was done by Dr.Sridhar Srimath Tirumala Konduru, it was found that among diabetic patients 46% had poor knowledge, 45% had medium knowledge and 9% had good knowledge regarding Diabetes Mellitus .So it is in the hands of health care personnel to create awareness among public about fast spreading disease like Diabetes Mellitus. Unless the private and public sectors are joining their hands in controlling the sugary disease, there will not be any reduction in this. To prevent diabetes and its complications there is an urgent need for coordinated educational campaigns with a prioritized focus on poorer, rural and less educated groups.

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