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RESEARCH ARTICLE

KNOWLEDGE ON DIABETES AND ITS MANAGEMENT AMONG THE SELECTED DIABETICS (30 – 50 YEARS)

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ABSTRACT

Health implies a sound mind, in a sound body, in a sound family and in a sound environment. At present changes in lifestyle and dietary pattern stemming from rapid modernization have favoured an increase in non-communicable diseases among the people. Among the non-communicable diseases diabetes is now recognized as one of the fastest growing threats to public health in almost all countries of the world. Globally, an estimated 463 million adults are living with diabetes, according to the latest 2019 data from the International Diabetes Federation. In order to effectively manage diabetes people must acquire the necessary knowledge on diabetes. The objective of the study is to know the knowledge on diabetes and its management among the selected Diabetics. For this study there are 300 Diabetics in the age group of 30 – 50 years were purposely selected by purposive random sampling method from the three villages namely Athoor, N. Panchampatti and Perumalkovilpatti in Athoor Block of Dindigul District, Tamil Nadu. In order to collect the required data an Interview Schedule was framed and pre tested. The finalized Schedule was used to collect the data from the Diabetics. To assess the knowledge on diabetes among the Diabetics the scores were given. The data was analyzed using the Statistical Package of Social Sciences (SPSS 16.0) programme. Among the selected 300 Diabetics 164 (54.7 %) of the Diabetics were males and 136 (45.3 %) of the Diabetics were females. More than half (56%) of the Diabetics were either illiterates or had education only up to primary level. One third (27%) of the Diabetics belonged to sedentary type of workers. The majority (86%) of the Diabetics belonged to low income and economically weaker section group. Among the Diabetics 32.7 percent, 30 percent and 22.7 percent reported that they got the information on Diabetes through mass media such as Television, Radio and Newspaper respectively. Twenty percent and 13 percent of them reported that they got the information from Physicians and ANM (Auxiliary Nurse Midwife) respectively. Regarding knowledge on diabetes more than half (54%) of the Diabetics obtained very poor scores (1-10). Forty five percent (45%) of the Diabetics obtained poor scores (11-20). Only one percent of the Diabetics belonged to the fair group (20-30). It was noticed that none of the Diabetics scored above thirty. This indicates their knowledge on diabetes was very poor. Hence, the study concludes, it is felt essential to give diabetic education to the Diabetics to effective management of their diabetes.

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INTRODUCTION

Health implies a sound mind, in a sound body, in a sound family and in a sound environment. Healthy wellbeing of a person gives him the most essential boost to his life and provides the energy to perform his best in any field. All people should have at least such a level of health that they are capable of working productively and participating actively in the social life of the community in which they live.

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For centuries, communicable diseases were the main cause of death around the world. Life expectancy was often limited by uncontrolled epidemics. After achievements in terms of vaccination, antibiotics and improvement of life conditions, non-communicable diseases (NCDs) like diabetes, cardiovascular diseases, cancer etc. started causing major problems in developing countries. Among the non-communicable diseases diabetes is now recognized as one of the fastest growing threats to public health in almost all countries of the world. Diabetes Mellitus is a metabolic-cum-vascular syndrome of multiple etiologies characterized by chronic hyperglycemia with disturbance of carbohydrate, fat and protein metabolism resulting from defects in insulin

secretion, insulin action or both. It is due to a combination of factors that are related to healthy life styles, unhealthy diet, physical inactivity, use of alcohol, tobacco and obesity. Stress and dietary habits play a major role in causing diabetes. The rapid transition of food choices from heritage results in excess consumption of calories, saturated fats and low intake of fibre, coupled with sedentary life style has made India to take the lead on the world's diabetic championship. This disorder is frequently associated with long term damage of organs like eyes, kidneys, nerves, heart and blood vessels. According to the official WHO data, India tops the list of countries with the highest number of diabetics; China, America, Indonesia, Japan, Pakistan, Russia, Brazil, Italy and Bangladesh follow. Globally, an estimated 463 million adults are living with diabetes, according to the latest 2019 data from the International Diabetes Federation. Every year, over four million people die from diabetes and more than ten million suffer from disabling and life-threatening complications such as heart attack, stroke, kidney failure, blindness and amputation. Diabetes is also implicated in and has negative consequences for certain infectious diseases, other non-communicable diseases (NCDs) and for mental health.

Diabetes also exacerbates major infectious diseases such as Tuberculosis, Human Immuno Virus (HIV) / Acquired Immuno Deficiency Syndrome (AIDS) and Malaria. People with diabetes are three times more likely to develop Tuberculosis (TB) when infected and approximately 15 percent of Tuberculosis (TB) globally is thought to be due to diabetes. Diabetes and malaria frequently occur together in countries where malaria is endemic. These diseases are harder to treat together and there is a higher chance of death for people with both. Diabetes results in high healthcare costs, loss of labour productivity and decreased rates of economic growth. Globally, healthcare expenditure for diabetes totaled USD 465 billion in 2011, equivalent to 11% of total health spending. The losses in national income from largely preventable deaths from diabetes, heart disease and stroke are enormous; between 2005-2015, those losses are estimated to reach USD 558 billion in China, USD 303 billion in Russia, and USD 237 billion in India. Early death is only one component of lost income and many people with diabetes suffer potentially avoidable disabling complications which prevent them from working. This represents a substantial loss to the economy and in countries where there is no social protection, can push families into poverty and rob children of opportunities for healthy nutrition, education and future employment. Diabetes related complications are rise and contribute significantly to overall morbidity and mortality. The low levels of education and poor awareness of the disease in the country are enhancing its impact on health of the population.

In order to effectively manage diabetes people must acquire the necessary knowledge on diabetes, skill, confidence and engage in particular behaviours such as testing blood glucose and emotional management. Research suggests patients who are informed about their illness and its treatment, are more likely to succeeded in managing their illness. In this context this research study was under taken to study the knowledge on diabetes and its management among the selected Diabetics. The findings of the study may help to recommend to the policy makers to implement nutrition as a subject in the regular curriculum from the lower classes to the higher classes to acquire knowledge on the importance of good health and nutrition to prevent diseases in future.

The findings of the study may further help to know the knowledge level on diabetes among the Diabetics which may be of use to plan the nutrition education to create awareness especially the education on diabetes in the community.

Objective of the Study: The objective of the study is to study the knowledge on diabetes and its management among the selected Diabetics.

MATERIALS AND METHODS:

The study was conducted in Athoor Block of Dindigul District, Tamil Nadu, India. The Dindigul District consist of 14 Blocks. The Athoor Block is one among the 14 Blocks. For this research in Athoor Block there are three villages namely Athoor, N.Panchampatti and Perumalkovilpatti was selected. For the study 500 Diabetics were selected from the list of screened Diabetics obtained from the selected Primary Health Centres (PHCs). Among these 500 Diabetics, 300 Diabetics in the age group of 30 – 50 years were purposely selected by purposive random sampling method. An Interview Schedule was framed and the same was pre-tested. After pre-tested the final schedule was framed and the same was used for collecting the data from the selected respondents. The knowledge on diabetes of the respondents were assessed by administering a set of 50 questions related to diabetes and its management such as prevalence, characteristics, diagnosis, normal blood glucose levels, types, etiological factors, symptoms, complications and management. To assess the knowledge on diabetes among the Diabetics the scores were given. The maximum scores were fifty. The scores obtained were classified in to five groups as: 1-10 (Very Poor), 11-20 (Poor), 21-30 (Fair), 31-40 (Good) and above 40 (Very Good). The data was analyzed using the Statistical Package of Social Sciences (SPSS 16.0) programme. The statistical measure i.e. simple percentage was used in the analysis and inferences were drawn.

RESULTS AND DISCUSSION

Socio-economic Status of the Diabetics

- Among the selected 300 Diabetics 164 (54.7 %) of the Diabetics were males and 136 (45.3 %) of the Diabetics were females.
- Ninety percent (90%) of the Diabetics were in nuclear family system.
- Seventy seven percent (77%) of them belonged to small family which consisted of 2 to 4 members.
- Ninety seven percent (97%) of the Diabetics were non-vegetarians.
- Majority (60%) of them were Hindus.
- Two third (65.7%) of the Diabetics belonged to Backward Community.
- Ninety percent (90%) of the Diabetics were married.

Educational Status of the Diabetics

- Nearly 16 percent of the males and 17 percent of the females were illiterates. Among the literates (84%) majority of the males (37.2%) and females (42.6%) had education only up to primary level.

Table 1. Selection of the Samples for the Study

S.No.	Name of the Village	No. of Diabetics
1.	Athoor	93
2.	N.Panjampatti	144
3.	Perumalkovilpatti	63
	Total	300

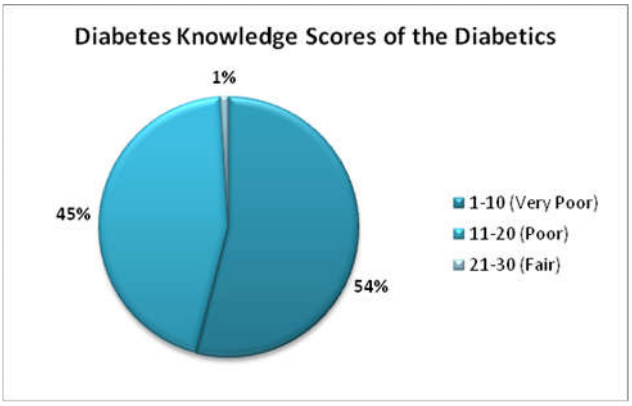
Table 2. Diabetes Knowledge Scores of the Diabetics

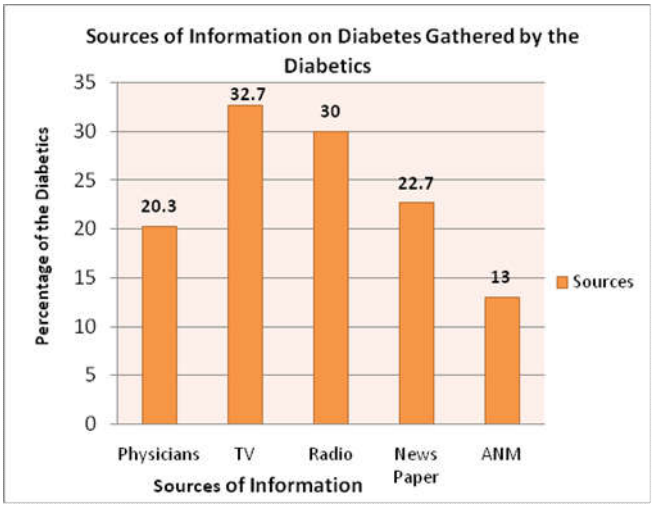
S. No.	Knowledge Scores	Diabetics	
		Number	Percentage
1.	1 – 10 (Very Poor)	162	54
2.	11 – 20 (Poor)	135	45
3.	21 – 30 (Fair)	3	1
4.	31 – 40 (Good)	---	---
5.	> 40 (Very Good)	---	---
	Total	300	100

Table 3. Sources of Information on Diabetes

Sources	Number (N=300)*	Percentage
Physicians	61	20.3
Television	98	32.7
Radio	90	30.0
News paper	68	22.7
ANM	39	13.0

*Multiple responses





- Nearly 33 percent of the males and 32 percent of the females had education up to middle and high school level.
- Nearly 7 percent (nine percent of the males and five percent of the females) had their education up to higher secondary level.
- Only 4.7 percent of the Diabetics were graduates.

Occupation of the Selected Diabetics

- More than half (57%) of the selected Diabetics were either coolies (42%) or worked in their (15%) own farms. Twenty seven percent of the Diabetics belonged to sedentary type of workers either doing business (4%) or employed in Government (7%) and private sectors (17%).

Monthly Income of the Diabetics

- More than one third (37%) of the families had their monthly income of rupees 3,300/- and below. Forty nine percent of the families had their monthly income range of Rs.3301/- to 7300/- and 9.7 percent had their income ranged from Rs.7301/- to 14,500/-. Only very few families (4%) had their income of Rs.14, 501 and above.
- Majority (86%) of the Diabetics belonged to low income and economically weaker section group.

Knowledge on diabetes of the Diabetics

- More than half (54%) of the Diabetics obtained very poor scores (1-10).
- Forty five percent (45%) of the Diabetics obtained poor scores (11-20).
- Only one percent (1%) of the Diabetics belonged to the fair group (20-30).
- It was noticed that none of the Diabetics scored above thirty. This indicates their knowledge on diabetes was poor and revealed the need for diabetic education.

Sources of Information on Diabetes

- Among the Diabetics 32.7 percent, 30 percent and 22.7 percent reported that they got the information through mass media such as Television, Radio and Newspaper respectively.
- Twenty percent and 13 percent of them reported that they got the information from Physicians and ANM (Auxiliary Nurse Midwife) respectively.

Conclusion

Among the selected Diabetics ninety nine percent (99%) of the Diabetics obtained very poor (1-10) and poor scores (11-20). Only one percent of the Diabetics belonged to the fair group (20-30). It was noticed that none of the Diabetics scored above thirty. This indicates their knowledge on diabetes was poor. Research suggests patients who are informed about their illness and its treatment, are more likely to succeeded in managing their illness. Without diabetic education, patients are four times more prone to develop major complications. The key aims of diabetes education are to change behaviour and promote self management. Self management implies that the person with diabetes will understand the impact of factors such as food intake, exercise, stress, medication on blood glucose and will be able to make appropriate adjustments to maintain glucose with in a targeted level. Education is a powerful means by which an individual comes out from ignorance to elegance. The community can be educated by creating awareness through various means about the importance of proper diet,

healthy life style and exercise can help to pave the way to control the diabetes in future.

REFERENCES

Saibaba, A. 2006. Nutrition Awareness Through Information, Education and Community. Journal of Health Action, 204.

Karduck. 2005. Improvement in Knowledge, Social Cognitive Theory Variables and Movement Through Stages of Change After a Community-Based Diabetes Education Programme. Journal of American Diabetes Association, 105, 1613-6.

Indian Council of Medical Research (ICMR). 2006. Assessment of Burden of NCDs. Indian Council of Medical Research.

Guy, K.K. 2011. Beware the 15 Signs and Symptoms of Diabetes Will be Diabetes by 2020, The Hindu.

Harder, T., Rodekamp, E. et al. 2007. Birth Weight and Subsequent Risk of Type 2 Diabetes : A Meta-Analysis. American Journal of Epidemiology, 165, 849-857.

Haque, N., Salma, U. and Uddin, MJ. 2011. Management of Type 2 Diabetes Mellitus by Lifestyle, Diet, Medicinal Plants. Pakistan Journal of Biological Sciences, 14(1) : 13-15.

Hodge, A.M., English, D.R. and Giles, GG. 2004. Glycemic Index and Dietary Fibre and the Risk of Type 2 Diabetes. Diabetes Care, 27 : 2701-2706.

Hoskote, S.S. and Joshi, SR. 2008. Are Indians Destined to be Diabetic?. Journal of Associations of Physicians of India, 56 : 225-226.

National Diabetes Education Programme (NDEP). 2012. NDEP Fact Sheet, Online Article.

Paulose, KP. 2013. Control of Diabetes. Health Action, 14(6):35-37.

Pradeepa, RM., Anjana, M., Deepa, V. and Mohan. 2011. The Need of Obtaining Accurate Nation Wide Estimates of Diabetes Prevalence in India Rationale for a National Study on Diabetes. Indian Council of Medical Research, 133:369-380.

Ramachandran, A., Snehelatha, C., Latha, et al. 2012. Rising Prevalence of NIDDM in an Urban Population in India. Diabetologia, 40:232-237.

Salas-Salvado, J., et al. 2011. Reduction in the Incidence of Type 2 Diabetes With the Mediterranean Diet. Diabetes Care, 34(1):14-19.

Seethalakshmi, S. 2011. World's Highest Diabetic Population. Times of India, San Diego, USA.

Shetty, B. 2013. Health, The New Indian Express, 1.

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