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A Study to Assess the Knowledge Among Mothers Of 1-15 Years Children Regarding Juvenile Diabetes Mellitus at Moonkilvai, In Kanyakumari District, Tamil Nadu, India

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ABSTRACT:

A descriptive study to assess the knowledge among mothers of 1-15 years children regarding juvenile diabetes mellitus. The aim of the study to assess the knowledge among mothers regarding juvenile diabetes mellitus. Materials and methods: Quantitative approach was adopted for the study. The study was conducted in Moonkilvilai population of the study was all mothers of 1-15 years children irrespective of their age group. The Study subject were selected by convenient sampling method. The technique used for data collection was structured interview schedule for knowledge related to Juvenile diabetes Mellitus. The validity of the tool was done by experts in the field of nursing. A scoring key was developed to score the items of analysis of data. Pilot study was conducted to find out the feasibility of conducting the study data was analysed by using descriptive and inferential statistics. Result: There was a gross inadequacy (60%) of knowledge regarding Juvenile diabetes Mellitus among mothers of 1-15 years children. Conclusion: Most of the mothers had inadequate knowledge, only few mothers had moderately adequate knowledge and none had adequate knowledge regarding Juvenile Diabetes Mellitus.

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KEY WORDS: Juvenile Diabetes, Diabetes Mellitus, Moonkilvilai, nursing, knowledge assessment

INTRODUCTION

Diabetes is a metabolic disease involving the under-production of Insulin or the resistance to its Actions. Diabetes changes lives: it is the sixth leading cause of premature death in Australia and effect 7.5%. Of the Australian population.

With reference to the new item 'WHO puts China ahead of India in incidence of Diabetes', diabetes Dr. C. K. Krishna swami writes "it is through – provoking for both doctors and the public because we are fed with a very sumptuous

diet on the ever - increasing Diabetes statistics and the consequences thereupon, by the media almost on a daily basis. there are, of course, a host of other reason (as against causes) notably wrong diet mellitus and affecting more young insulin dependent diabetes mellitus (type I diabetes) is many times more in the west than in the orient. A recent data published by the WHO is worth sharing with the public as it brings out favourably starting inference that over the next 10 years India is the best country to be living in, if you want to survive with diabetes. There is much genuine and non-commercial research to be

done in the field of diabetes. India is the right place, the present in the right time, and government support to the right type of initiatives would surely bring out many more startling facts to make us real leaders in the field, not followers of guidelines in diabetes dished out by societies and Associations unfamiliar with the ground realities in our country.

In 1979 the National Diabetes Data group of the National Institute of Health Developed 3 different mutually exclusive subclasses of Diabetes. They were type I (Insulin Dependent Diabetic Mellitus), type II (non-Insulin Dependent Diabetes Mellitus) and other types (Diabetic Mellitus associated with certain conditions or Syndrome. The national Health Survey estimates the number of diagnosed diabetes mellitus under the age of 25yrs to be 1.8 in 1000 (1). Other survey indicates an even higher incidence. For eg: one child in 500 in Detroit (2).

The impact of type I diabetes on this nation's health care dollars and on individuals is substantial. The juvenile diabetes research foundation (JDRF) reported that 25% of all Medicare dollars are spent on diabetes-related care exceeds \$ 130 billion annually (3). The JDRF also reported that people with this. Type I diabetes have a life expectancy Ω 15 yrs, less than those without diabetes, primarily as a result of complications related to elevated blood glucose levels (American Diabetes Association, 19996). These complications include heart disease, stroke, blindness, renal disease & peripheral vascular disease.

Diabetes is a chronic disease in which the body can't produce or properly use insulin, the hormone needed by the body to change food sugar into energy. Of the estimated 16 million Americans with the condition, more than 90 percent have type 2, or non-insulin- dependent, diabetes. Most at risk are minorities and the elderly. Causes may involve both genetic and lifestyle factors. Primary areas of VA research on diabetes include testing new drug therapies, probing the genetic causes of diabetes, and learning new ways to help patients control blood sugar and reduce risk factors (4).

The approximate 500,000 to 800,000 children under the age of 15 years diagnosed with type I diabetes face the threat of numerous serious health risks over their life span if they do not adhere to necessary self-care activities (JDRF) helping children with diabetes to maintain control of this illness and prevent serious long-term complications is in the best interest of the children and of the nation (5). 15.20% of juvenile diabetes may present with threatened or established coma or semi coma. It is estimated that childhood diabetes accounts for around 5% of total

population of diabetes. In India alone, there are likely to be about 4,00,000 infants and children with this disease. A WHO report places the figures at 40,000 in Bangladesh 60000 in Pakistan, 20000 in Srilanka, 27000 in Nepal and 5000 in Afghanistan. About 10-20% of all known cases of diabetes are insulin dependent. The pack occur in puperty (11-12 yrs) with a smaller rise at 5-8 years(6-7).

STATEMENT OF THE PROBLEM:

A descriptive study to assess the knowledge among mothers of 1-15 years children regarding Juvenile Diabetes Mellitus in Moonkilvilai.

OBJECTIVES:

- To assess the knowledge among the mothers of 1-15 years of children in Moonkilvilai.
- To find out the association between knowledge and selected demographic variables (age, education, occupation, family monthly income, family history and source of information).

MATERIALS AND METHODS:

Descriptive survey approach was used for this study. Descriptive in nature design was used for this study. The study was conducted among mothers of 1-15 years children in moonkilvilai. The total population is 373.30 mothers were included in the study. The sample was selected by convenient sampling technique (8).

RESEARCH TOOL

The tool used for this study includes 2 sections.

Section I : Demographic data

Section II : Structured knowledge questionnaire

Demographic data of the mother such as age, educational status, occupation, family monthly income, family history of Juvenile Diabetes Mellitus, source of information.

Structured knowledge questionnaire was used to assess the knowledge among mothers of 1 – 15 years children regarding Juvenile Diabetes Mellitus. The questionnaire consisted of multiple choice questions. Score 1 was given for correct answer. Score 0 was given for wrong answer. The total attainable score for the knowledge items was 20.

DATA COLLECTION PROCEDURE

Before conduction of formal permission was obtained. The period of data collection was planned for 1 week. The investigator introduced herself to each subject and explained the purpose of study. After assessing the subjects' confidentiality, verbal consent was obtained from the subject. The investigator introduced the method of answering the questions. Scoring was given according to the response of each subject (9).

STATISTICAL ANALYSIS

Data analysis was done according to the objectives of the study. Data was analysed by descriptive statistics and

inferential statistics. Frequency and percentage distribution was planned to be used for assessing the level of knowledge. Chi-square was used to find out the association between knowledge and selected demographic characteristics.

Distribution of Demographic factors of the subject

This section deals with the demographic factors of samples in terms of age, education, occupation, family monthly income, family history, source of information.

Table 1 Frequency and percentage distribution of the subjects with regard to selected demographic factors.

Sl. No	Demographic factors	Frequency (n)	Percentage (%)
1	Age		
	21 – 25 years	9	30
	26 – 30 years	9	30
	Above 30	12	40
2	Education		
	Literate	18	60
	Illiterate	12	40
3	Occupation		
	Health professionals	3	10
	Non health professionals	27	90
4	Family monthly income		
	Rs. 3000 - Rs. 5000	12	40
	Rs. 5000 – Rs. 10000	15	50
	Above Rs. 10000	3	10
5	Family history		
	Yes	3	10
	No	6	20
	Unknown	21	70
6	Source of information		
	Mass Media	12	40
	Personal Communication	18	60

The data in table – 1 showed that majority of the subjects 12 out of 30 (40%) were above 30 yrs, 9 out of 30 (30%) were between 21 – 25 yrs, and 9 out of 30 (30%) were between 25- 30 yrs. Regarding educational status majority of the subjects 18 out of 30 (60%) were literate 12 out of 30 (40 %) were illiterate. Regarding occupational status majority of the subjects 27 out of 30 (90%) were non health professionals. 3 out of 30 (10%) were health professionals. Regarding the family monthly income majority of subjects 15 out of 30 (50%) have family income between Rs. 5000 – 10000. 12 out of 30 (40%) have family monthly income between Rs. 3000 – 5000. 3 out of 30 (10%) have family monthly income above Rs. 10000. Regarding the family history majority of subjects 21 out of 30 (70%) have unknown family history. 6 out of 30 (20%) have no family

history. 3 out of 30 (10%) have family history of Juvenile diabetes mellitus. Regarding sources of information majority of subjects 18 out of 30 (60%) acquired knowledge by personal communication. 12 out of 30 (40%) acquired knowledge through mass media.

Table 2 Distribution of the subjects according to the overall level of knowledge regarding Juvenile diabetes mellitus.

Level of knowledge	Frequency (n)	Percentage (%)
Inadequate	18	60
Moderately adequate	12	40
Adequate	0	0

Data on table – II showed that 18 out of 30 (60%) had inadequate knowledge, 12 out of 30 (40%) had moderately adequate knowledge, 0 out of 30 (0%) had adequate knowledge.

Table 3 Distribution of overall mean and standard deviation of knowledge of the subjects towards Juvenile diabetes mellitus.

Variable	Mean	Standard deviation
Knowledge	9.57	1.56

The above table shows that the mean value of the level of knowledge of mothers was 9.57 and the standard deviation was 1.56.

DISCUSSION

This study was carried out to assess the knowledge among mothers of 1 – 15 yrs children regarding Juvenile diabetes mellitus, in Moonkilvilai. A total of 30 mothers were studied using descriptive design and structured interview schedule was used to collect the data. The study findings were discussed with the objectives and hypothesis.

To assess the knowledge among the mothers of 1-15 years of children in Moonkilvilai, regarding Juvenile diabetes mellitus.

The overall level of knowledge among the subjects about Juvenile diabetes mellitus. In that 18 out of 30 (60%) had inadequate knowledge, 12 out of 30 (40%) had moderately adequate knowledge, 0 out of 30 (0%) had adequate knowledge.

To find out the association between knowledge and selected demographic variables (age, education, occupation, family monthly income, family history and source of information).

There was a association between knowledge and selected demographic variables such as occupation and family

monthly income of the subjects and there was no association between knowledge and selected demographic variables such as age, education, family history of Juvenile diabetes mellitus and source of information of the subjects.

CONCLUSION

Cost effective production of materials such as charts, posters, pictures used for teaching by nurses should be encouraged. Necessary staffing is needed to provide administrative support for sufficient staffing in community area and for arranging health education programme. This study brought out the following conclusion that most of the mothers had inadequate knowledge, only few mothers had moderately adequate knowledge and none had adequate knowledge regarding Juvenile Diabetes Mellitus.

Conflict of Interest

The authors have no conflict of interest.

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