

A survey on Personal Health maintaining behavior among Chronic Diabetic patients

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ABSTRACT

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In Siddha literatures, various etiologies has been discussed such as increased dietary intake (*athiga unavu unnuthal*), Increased sexual activity, Stress (*Manakallakam*), genetic factors, Excessive food intake like ghee, fish, milk, toddy etc, and taking sweet tastes items causing diabetes mellitus.

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Literally diabetes is correlating with *Madhumegam* in Siddha. The concept of Personal Health maintaining character is most important for chronic ill diabetic patients, though the disease itself cause some Complication during the long term existence. So the self caring will ensure the safety and prevents from complications. Siddha systems of medicine have insisting several disease prevention guidelines like *Teraiyar Pini anuga vithi, Kala olukam*, etc.

We conducted Qualitative questionnaire study among participants visited OPD Government Siddha Medical College, Palayamkottai through convenient sampling. Nearly 60% of peoples don't have awareness about self care even in their chronic diseases stage and clearly stating that there is a state of lack of awareness among chronic diabetes patients. **Keywords:** Diabetes, *Madhumegam*, Self-care, Personal caring, Siddha Medicine.

INTRODUCTION

Diabetes Mellitus is leading cause of morbidity and mortality world over. The prevalence of Diabetes Mellitus among various countries ranges from 1% - 30% and it is higher in the developed countries compared with the developing countries. By 2036, 844 million people will be affected with Diabetes Mellitus. As of 2016, 422 million people have diabetes worldwide, up from an estimated 382 million people in 2013 and from 108 million in 1980. Accounting for the shifting age structure of global population, the prevalence of Diabetes Mellitus is 8.5% among adults in 2016, nearly double the rate of 4.7% in 1980. Type II makes up 90% of the cases. Diabetes Mellitus is expected to continue as a major health problem owing to serious complications. The WHO estimates that DM resulted in 1.5 million deaths in 2012, making it 8th leading cause of death.

In Siddha system of medicine, diseases are classified into 4448 types. According to Siddhars, *Yugi Vaithiya Chinthaamani*, Meganoi is classified into 20 types out of one, madhumeagam has comes

under Pitham type which is called Thithippu Neer literally correlate as the water with excessive sweet in taste, where characteristics such as dryophilas and small insects may surrounds the urinated site.

As per Siddha system, tridosham or the three humours namely vatham, pitham and Kapham are in a state of equilibrium, potentiate the well-being of human body. Imbalance of any of these humours initiates the disease and its further progression. In diabetes, the pitham will be disturbed due to diet and lifestyle alterations and causes Diabetes mellitus.

Diabetic complications depend on the accumulated kapham in various parts of human body such as eyes (retinopathy), kidneys (nephropathy) and nerves (neuropathy). When there is a predominant increases in pitham humour (fire) there is an increased metabolic fire as pitham is an important component of digestion and metabolism.

Diabetes and self care management

Diabetes self-management is a critical element of care for all people with diabetes and those at risk for developing

the disease. It is necessary in order to prevent or delay the complications of diabetes and has elements related to lifestyle changes that are also essential for individuals with prediabetes as part of efforts to prevent the disease. Many people with diabetes have or are at risk for developing co-morbidities, including both diabetes-related complications and conditions (e.g., heart disease, lipid abnormalities, nerve damage, hypertension, and depression) and other medical problems that may interfere with self-care (e.g., emphysema, arthritis, and alcoholism). In addition, the diagnosis, progression, and daily work of managing the disease can take a major emotional toll on people with diabetes that makes self-care even more difficult. In that same way Siddha system has defining such complications, which is termed as avathaigal. Yugimuni has described the complications of Madhumegam as "Avaithaigal". There are ten avathaigal described one by one as follows: 1) Excessive accumulation of fat and dilatation of urethral orifice 2) Excess urination, Defect in semen that is followed

by reducing of brightness in the body, 3) Dryness of the tongue and abdominal distension due accumulation of excessive gas, 4) Delirium supervenes following dehydration due to excessive elimination of tissue fluid and will causes oedema 5) Polyuria, glycosuria and spermatorrhoea 6) Breathlessness and restlessness 7) Nausea, tastelessness, labored breathing, exhaustion, 8) Carbuncle and multiple abscess formation 9) Gastroenteritis with worm infestation 10) Intractable troublesome, pulmonary infections leading to death. These 10 symptoms are the major complications mentioned in literatures. Primary objective is to rule out the effect of socioeconomic status of the patients with *Madhumegam*. Secondly to rule out their diet and health maintenance nature among patients visiting OPD Government Siddha Medical College, Palayamkottai.

SUBJECTS AND METHODS

The research work is carried out in patients attending *Madhumegam* OPD, Government Siddha Medical College, Palayamkottai, during the period from June - September, 2018. This is a cross sectional descriptive

study with 104 participants and convenient sampling technique has been taken based on Informed consenting process.

Sample size

Total 104 participants has been included in this study. The study sample size was calculated based on the prevalence of diabetic patient enrolment in this hospital and margin of error, absolute precision etc. All the consequent patients based on convenient sampling attending Out Patient Department with the symptoms of Madhumegam at Govt.Siddha Medical College, Palayamkottai from June 1st June 2018 to 31st August 2018. We included patients with both sexes, and age between ≥ 35 and ≤ 69 years were included in this study. Priory designed the exclusion criteria, such as not to include age group below <34 years and above >70 years, Gestational DM, Diabetes insipidus.

Data collection Procedure

The information has been collected through pre-defined and well structured questionnaire.

Data Analysis

The data was analysed through SPSS version 21 Trial package.

In research, data analysis includes recording of key exposure / outcome variables; indicators to be calculated for the descriptive analysis (e.g measures of disease prevalence, incidence), measure central tendency (mean, median).

Quality Assurance

Following procedures are conducted in time with good planning by chief investigator. Whole research work himself and no blinding will be incorporated with time frame schedule Protocol development, Data collection and Data analysis. The collected data was secured safely in password protected hard disk.

Bias and Limitations

Care will be taken to minimize the impact of the bias / limitation on the quality of the study through questionnaire checking three times before and after data collections and all of the records are included without any selection.

Ethical Approval

Institutional Ethical Committee (IEC) of the participating centre will give the clearance certificate before the minor project is initiated. Patient's information sheet and informed consent form should be submitted along with project proposal for approval by IEC.

There will be no infringement on the rights of the patient. The data collected from the patient will be kept strictly confidential. The patient will be informed about the study. After obtaining the written consent of the patient (through consent form in their understandable language) they will be enrolled in the study. The patient will be allowed to withdraw from interviewing if he/she is not satisfied with this study along with ensuring the continuation of required treatment procedures.

RESULTS AND DISCUSSION

In this study, nearly 46% of female and 54% of male were participated in this cross sectional study. In this 60% of participants from rural area and 10% from urban and 30% from semi-urban area. Age group of participants were Less than 40 yrs

are 2%, 41years-50years were 23%. 51years-60years were 40% and above 61years were 36 years. We haven't included the age group below 35 years and 70 years to identify the accuracy in results. In table 1. The participant of this study was nearly 45% were well and moderate educated group and remaining was uneducated. In this case 13% were degree holders, 5% were completed their higher secondary educations and 27% were completed high school education, 29% was not had any formal education and remaining 27 % has gone primary schoolings.

Table 1. Education status of participants of this study

Education status	Frequ ency	Perce nt	Cumulative Percent
Degree	13	12.5	12.5
Higher Secondary	5	4.8	17.3
High School	28	26.9	44.2
No Formal Education	30	28.8	73.1
Primary School	28	26.9	100.0

The Participants nearly taking medicines for more than 10 years are 26%, 10 years were 6%, 5 years were 31% and 38% were 2 years. Most of the participants are chronic diabetic patient were included in this study based on inclusion and exclusion criteria.

Table 2. Duration of medicating for the treatment of diabetes mellitus.

Duration of medicating	Frequency	Percent
10years	6	5.8
2years	39	37.5
5years	32	30.8
above 10years	27	26.0

43% of people were not taking high level of sugar in their diet and 605 of participants were using high amount in their regular diet. Among 104 participants, 1 % kabavatha,. 19% Pithakabam, 36% Pithavatham, 15% vathakabam, 29% Vathapitham were classified based on bodily humours. Pitham vatham and vatham pitham combination of bodily humours has high existence of diabetes based on our study.

Diabetic patients have using wide variety of food habits without the proper knowledge on diet maintenance and awareness about the disease diabetes. In this study, we evaluated the connection between food and body humours. We established the health caring pattern of dieting system among our participants. We already discussed, vathapitham and pithavatham group has high number of diabetics' patients, most of them using mixed diet. No such awareness among diabetic dieting protocol has been there and tabulated in table. 3 and figure 1.

Figure 1. Body humour distribution of this participation of the study

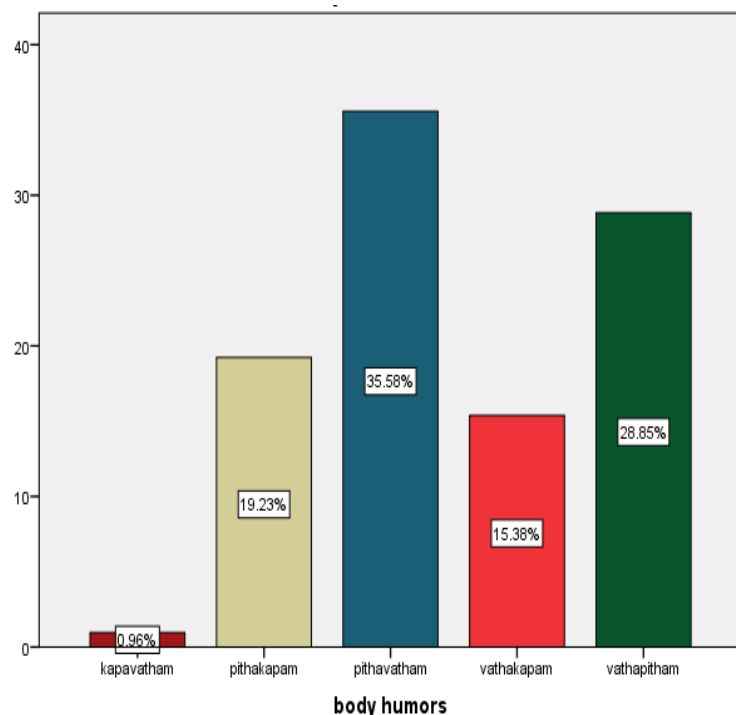


Table. 3. Food and body humours relationship of participant of this study.

Diet pattern		BODY HUMORS				
		Kappa vatham	Pitha kapam	Pitha vatham	Vatha kapa m	Vatha pitham
food	mixed	0	9	19	10	14
	nonveg	1	4	10	5	10
	veg	0	7	8	1	6

Duration of medication and health maintenance behaviour

The self caring behaviour has been gradually decreased among the common peoples due to lack of awareness campaign about the diseases. Nearly participant who has taking medicines for the past 10 years has mostly following the food control, exercise techniques. Those who are taking medicines more than 10

years were using the same food control, exercise techniques. Majority of participants with 2 years and 5 years of medicament consuming participants using food control as the main curriculum in figure 2. This study has concluded that, the most of the participants were using the food control as a major in maintenance of their diabetic health in table 4. In Figure 3. Focused the users of food and using medicine participant.

Table 4. Duration of medication and health maintenance behaviour

Health Maintenance		Food control	Food control exercise	Food control exercise	Food control medicine	medicine
duration of medicine taking	10years	1	1	2	2	0
	2years	1	1	10	22	5
	5years	2	0	13	14	3
	above 10years	0	0	10	15	2

Figure 2. Overall participants' maintenance pattern for the chronic diabetes status.

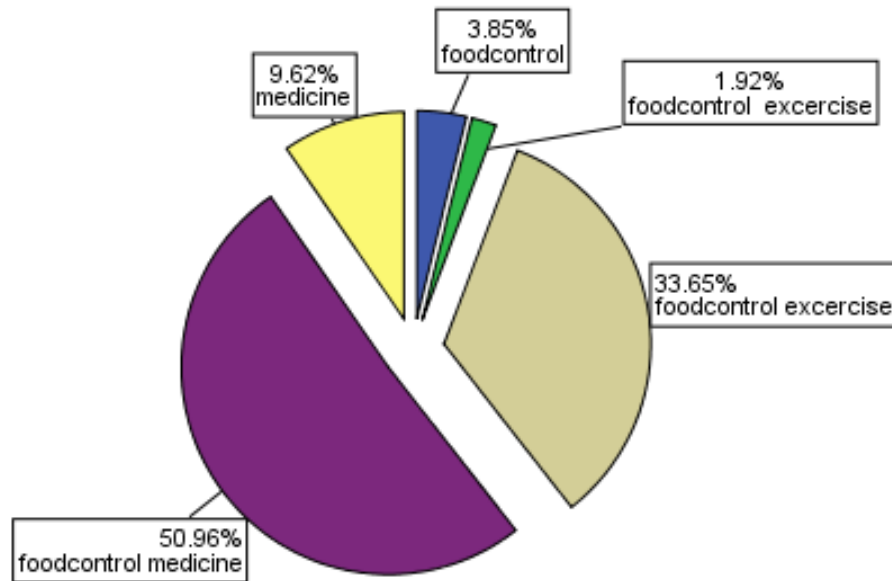
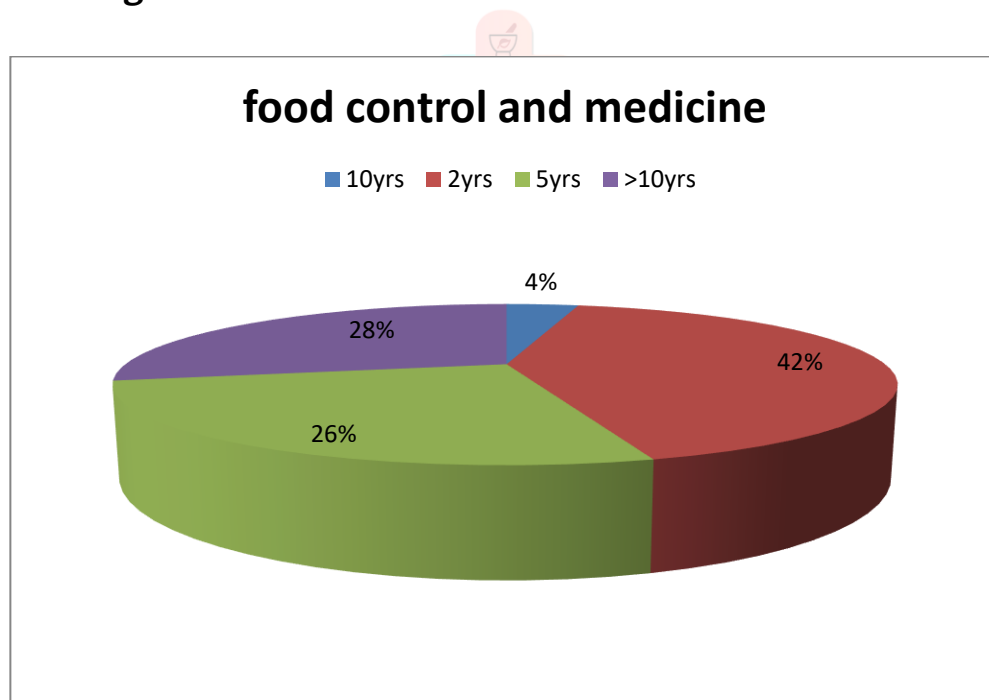


Figure 3. Participants using food and medicine for the control of diabetes with the correspondence of age.



CONCLUSION

Ensured the knowledge about various causes of *Madhumegam* in patients attending OPD, Government Siddha

Medical College, Palayamkottai. Make better understanding about the effect of socioeconomic status with

Madhumegam we have to provide the knowledge of self care management. Diabetes self-management is a critical element of care for all people with diabetes and those at risk for developing the disease. It is necessary in order to prevent or delay the complications of diabetes and has elements related to lifestyle changes that are also essential for individuals with pre-diabetes as part of efforts to prevent the disease. Many people with diabetes have or are at risk for developing co-morbidities, including both diabetes-related complications and conditions (e.g., heart disease, lipid abnormalities, nerve damage, hypertension, and depression) and other medical problems that may interfere with self-care (e.g., emphysema, arthritis, and alcoholism). In addition, the diagnosis, progression, and daily work of managing the disease can take a major emotional toll on people with diabetes that makes self-care even more difficult. Still more awareness has to be initiated among chronic diabetes patients through regular medical camps in district head hospitals through health care system.

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