

Knowledge and Practice regarding Self-Care among the patients with type II Diabetes of Kapan, Kathmandu

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ABSTRACT

Introduction: Diabetes is considered as one of the chronic health problems and the 6th leading cause of mortality in the world. Self-management of diabetes involves a number of considerations and choices that the patient with Diabetes must make on a daily basis. It requires that patients are able to reconcile their resources, values and preferences with a therapeutic of a healthy diet, exercise, no smoking, low or no alcohol intake, glucose monitoring and for some patients, medication. **Objective:** To assess the knowledge regarding Self-Care and practice among the patients with type II Diabetes in in kapan municipality kathmandu. **Methods:** Descriptive cross sectional study was adopted to assess the knowledge regarding Self-Care and the practice among the patients with type II Diabetes. The study population was 100 and study period was From 2014 September 15-October 15 in Kapan, Kathmandu. **Result:** The study was carried out in 100 respondents among them the majority 30 % respondent have adequate knowledge and 12% respondent have inadequate knowledge. In these respondents practice seem to be sufficient. Among the 58 respondent, majority of the respondents (38%) have insufficient knowledge and (20%) have sufficient. Knowledge and in these respondents practice seems to be inadequate. The result shows that majority (58%) of the respondents has inadequate practice and (42%) had adequate practice. There was equal percentage of sufficient and insufficient knowledge among respondents i.e. 50%. **Conclusion:** The present study concluded that respondents who have sufficient knowledge have adequate practice about self-care majority of the respondents having insufficient knowledge have inadequate practice.

KEY WORDS: Diabetes Mellitus, Knowledge, Practice, Self care

INTRODUCTION

Diabetes Mellitus is a group of metabolic diseases characterized by increased levels of glucose in the blood (hyperglycemia) resulting from defects in insulin secretions, insulin action, or both (International Diabetes Federation, 2009). Current predictions estimate that the prevalence of diabetes will reach 438 million by 2030 and that 80% of prevalent cases will occur in the developing world (World Health Organization, 2012). Five and a half million deaths in

2013 worldwide i.e.1 patient/six seconds have been occurring due to diabetes. (International Diabetes Federation, 2013).Self-Care means monitoring blood glucose levels, taking medication, maintaining a healthy diet, regular exercise and self foot exam. The estimates show that 76% of global health expenditure on diabetes in 2013 was for people between the ages of 50 and 79 years. The treatment expenses on development of complications is high thus to focus diabetic patients on self-care in order to prevent that situation. Diabetes caused at least USD548 billion in health expenditure in 2013 i.e.11% of total health spending on adults (International Diabetes Federation, 2013).

Hence study on diabetes self-care seems prominent to reduce risk of disease and great extent of self-control and prevention. Diabetic Patient towards Self Care Activities for Longevity of Life' at M.L.B. Medical College, Jhansi among 500 diabetic patients indicated that mean score (9.44) with S.D of 2.06 and this value indicates that the practice was not satisfactory and no significant association between practice towards self-care activities with socio demographic variables such as gender, age, marital status, type of the family, educational status, dietary habits and duration of diabetes. (Singh & Vijij, 2014). Among self-care practices, following a controlled diet ($p = 0.04$), regular exercise ($p = 0.04$) and compliance with drugs ($p = 0.03$) were significantly associated with the achieving glycemic control (Padma, Bele, Bodhare, & Valsangkar, 2012).

Nearly half of diabetic patients had poor self-care practices and an educational status was associated with self-care (Amente, Belachew, Hailu, & Berhanu, 2014)

METHODS

This is a descriptive cross sectional purposive study design. Non-probability purposive sampling technique was used to explore the knowledge and practice regarding Diabetes Mellitus. Study was performed at Shanti Tole ward no: 2 Kapan, Kathmandu. Over a period of one month that is (from September 15-October15). Age of the respondents was 40 -60 years. Clients with severe diabetes complication, type I diabetes were excluded from the study. For ethical consideration formal permission was taken from the concerned authority of study area by submitting an official letter. The objective and purpose of the study was clearly explained before data collection to the study subject. Informed consent with individual was taken before the data collection. Privacy, confidentiality and anonymity of the respondent were maintained. Semi-structured questionnaire was used in the interview schedule.

Scoring for knowledge and practice (manage level)

The scoring criteria are as below:

For knowledge,

Below mean (< 14.1 or $< 52\%$) – Insufficient knowledge

Above or equal to mean (≥ 14.1 or $\geq 52\%$) – Sufficient knowledge

For practice,

Below mean (< 14.4 or $< 51\%$) – Inadequate practice

Above or equal to mean (≥ 14.4 or $\geq 51\%$) – Adequate practice (Hanu, et al., 2013).

RESULTS

The survey was conducted in 100 clients. Frequency and percentage were used and interpreted through the help of table and figures to make the data clearer and more understandable.

1. Socio-demographic characteristics of respondents

Majority of the respondents are of age group 46 -50 and 56 - 60 contributing (32%) each. Regarding gender (56 %) is male and (44 %) are female. Majority of respondents (88%) are from Newar ethnic group. Majority of respondents (52%) were from Hindu religion. Majority of the respondents (96%) were married. Most of the respondents (78%) are literate and (22%) are engaged in agriculture and other (32%) related to other occupations. Family income of respondents shows that (36%) of respondents fall between the maximum range of 10,000 -15,000.

2. Finding related to knowledge about self-care

2.1 Self-care knowledge related to Diabetic diet plan and intake of alcohol and smoking:

Among 100 respondents majority of the respondents (86%) have the knowledge necessity of blood test for Diabetes Mellitus and Diabetic diet plan. (98%) have the knowledge that smoking and intake of alcohol should be strictly avoided in Diabetes Mellitus.

2.2 Self-care Knowledge related to exercise and duration of exercise:

Among 100 respondents majority of the respondent (96%) have the knowledge concerning the need of the exercise to be done. Majority of the respondents (78%) know that the exercise should be practiced at least 30 minutes.

3. Knowledge about regular medicine, check-up and blood test :

Majority of the respondents (96%) have the knowledge that if medicine is prescribed by the doctor should be taken regularly, (88%) respondents have the knowledge regular check-up and (68%) have the knowledge about importance of the regular blood test.

4. Diabetic Self-care Knowledge related to foot care:

Majority of the respondent (94%) of the respondents have the knowledge of the necessity of foot care. Among them (30 %) said it should be washed daily, (40%) that it should be washed twice a day and (24 %) said that it should be washed daily also said should also be washed every time when you comeback from outside.

5. Diabetic self-care knowledge related to carrying diabetic identity card

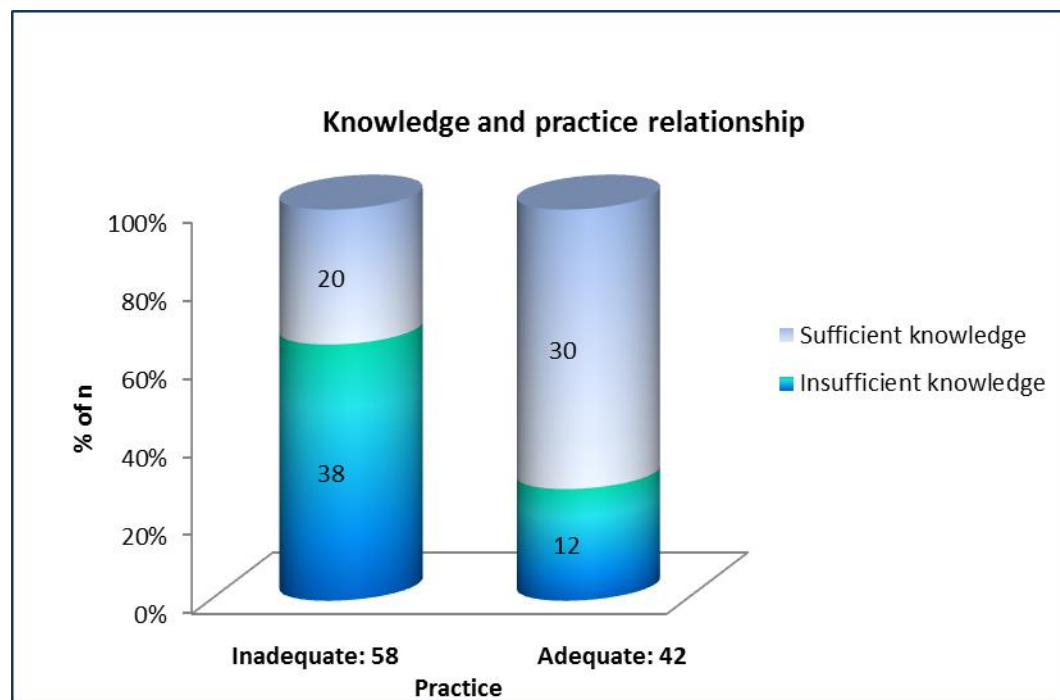
Majority of the respondent (92%) have heard about ID card its importance of carrying it.

6. Finding related to self-care practices done Diabetic client

TABLE 1: Practices that are followed by the Respondents

Practices	Frequency	n=100
		Percent
Food intake per day		
Two times	20	20%
Three times	42	42%
Four times	38	38%
Exercise frequency		
Daily	72	72%
Two to three days in a week	18	18%
Four to five days in a week	10	10%
Exercise duration per time		
20 minutes	22	22%
30 minutes	30	30%
60 minutes	48	48%
Physical checkup frequency		
Half yearly	22	22%
Once in a year	78	78%
Blood glucose test frequency		
Once in a week	2	2%
Once in a month	82	82%
Half yearly	16	16%
Total	100	100%

Sources: It is primary data and it is collected from the respondent who are suffering from type II Diabetes from Shanti tole, Kapan from ward no: 2 through structured and semi structured questionnaire by interview schedule, with each respondent on from September 15-October, 2014. As in the above table, food intake in a day, most respondents (42%) was 3 times per day, only (20%) ate twice a day found to be insufficient food intake practice besides (38%) took meal 4 times a day. Nearly 3/4th of respondents exercised daily to control diabetes, (10%) of them found to have satisfactory exercise practice which is four to five days in a week and rest (18%) had poor practice only up to 3 days in a week. Considering duration of exercise (78%) of respondents had efficiently practiced. Most of the diabetes patients in the study (78%) had checked physical health only once in a year which is not sufficient. In contrast blood glucose test performance frequency of all the respondents found to be satisfactory i.e. they all checked blood glucose level within six months.



Sources: Data is collected from ward no: 2 Shantitole, kapan by the help of structured and semi structured questionnaire with interview schedule. The respondents were Diabetes client. Datas were collected with each respondent by purposive non probability sampling technique from september15-October, 2014.

As illustrated in the above figure, the result displayed pointing to majority that the respondents having insufficient knowledge have inadequate practices those were 38 (76%) out of 58 respondents. In addition patients having adequate knowledge tended to practice efficiently i.e. 30(60%) out of 42 respondents practicing adequately. In contrary, 20 (40%) sufficient knowledgeable respondents seemed to have inadequate practice and 12 (24%) insufficient knowledge having respondents seemed to practice well. The p-value for this test is 0.010 that indicated positive relationship between knowledge and practice when tested in 5% significance level.

DISCUSSIONS

Knowledge and practice is based on the mean score of total respondents and divided into two halves. The mean of knowledge was 28.2 and 28.8 for practice. This method is consistent with the method used by with “Knowledge and Practices. Among People with Diabetes Attending a Secondary Care Rural Hospital in Southern India” by Hanu et al., the total and mean knowledge scores and practices scores were calculated. The study participants were categorized into two groups: Those who scored mean or above as having good knowledge and good practices and those with less than mean scores as having poor knowledge and poor practices.

Among 100 respondents, having insufficient knowledge, 76% practiced inadequately. Similar study conducted by Pandey & Chapagain, in 2013 in Metro polyclinic Kathmandu, Nepal also stated that out of 50 respondents unsatisfactory self-care practice was more than half

(56.75%) among adequate knowledge respondents. Among respondents having inadequate knowledge, majority (92.31%) had unsatisfactory practice. Majority (74%) had adequate knowledge and satisfactory self-care practice was done by only study 34%.The study result is consistent with the present study.

The quantified result revealed that 50 (50%) out of total 100 respondents were found to have adequate self-care knowledge and 50(50%) have inadequate knowledge. According to similar study, done by Jackson, Adibe, Okonta, & Ukwe, in 2014, 79.5% had 70% knowledge about self-care. The study result does not consistent with the present study it may be due to study done in different country.

Majority of the respondent (94%) of the respondents have the knowledge of the necessity of foot care. Among them 30% said it should be washed daily, 40% said that it should be washed twice a day and 24 % said that it should be washed daily and also said should also wash every time when comeback from outside. Similar type of study done by (Saleh, Mumu, Ara, Begum, & Ali, 2012)81% with good knowledge and about 70% from average and poor groups did not take care of their feet. The result is consistent with the present study.

CONCLUSION

It can be concluded that out of the total 100 respondents, the mean score for knowledge was 14.1 i.e. 52% of maximum score 27. The total number of sufficient and insufficient knowledge is exactly half .Similarly, the mean score for practice was 14.4 i.e. 51% of maximum score of 28. Among them with inadequate and adequate practice were 58% and 42% respectively. Statistically significant associations were established between the level of knowledge and the practice ($p < 0.001$).If we give more knowledge about self-care to diabetes patient encourage them to practice it, the national budget that is being spent for treating Diabetes related complication will be reduced and this budget can be spent for other health sector and to some extent we can upgrade the health condition of our country people.

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