Knowledge Regarding Diabetic Care among Diabetic Patient

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ABSTRACT

Diabetic mellitus is the most common non-communicable disease as well as lifestyle disease which require a multipronged approach for its management, wherein patient has an important role to play in terms of self-care practices. So self-care of diabetes is essential for to control of disease and improvement of quality of patient's life. This study aimed to assess the knowledge regarding on diabetes care among diabetes patient. This is a cross sectional descriptive study. It included sixty respondents who were diagnosed as diabetes mellitus attending in Medical ward, Medical OPD and Surgical OPD,Western Regional Hospital. Respondents were interviewed using a semi structured questionnaire. The data was collected using non probabilitypurposive sampling technique and analyzed using SPSS 16. The patients' knowledge about the disease and their diabetes care were the main outcome measures. In this study, patients' knowledge about diabetes care was satisfactory. More than half (56.7%) of respondents were between 40-60 years age group followed by more than half (51.7%) of female respondents. Majority (73.3%) of the respondents reside in urban area. Less than half (42.6%) of respondents have received primary education. More than half (53.3%) of the respondents had suffered from diabetes duration of 1-3 years. More than half (53.3%) of respondent had no family history of diabetes. Majority (76.7%) of respondents thought that diabetes is controllable disease less than half (35%) of respondents thought that diabetes may cause complication. Most (90%) of respondents received information about diabetes care from health worker/ institution. Knowledge regarding diabetic diet, exercise, oral health, eye care, foot care and blood sugar monitoring of respondents were 61.7%, 15%, 21.7%, 50%, 25%, and 31.7% respectively. The finding revealed that diabetic patent had a satisfactory knowledge on diabetes care. It indicates need of giving proper knowledge to diabetes patients by education.

Key words : diabetes, diabetes care, knowledge

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INTRODUCTION

Diabetes mellitus or simply diabetes, is a group of metabolic diseases in which a person has high blood sugar, either because the pancreas does not produce enough insulin, or because cells do not respond to the insulin that is produced. This high blood sugar produces the classical symptoms of polyuria (frequent urination), polydipsia (increased thirst) and polyphagia (increased hunger). Diabetes may cause acute and chronic complication if serious considerations is not taken in early stage of development. These complications can affect the quality of life of patients and may lead to increased morbidity and mortality.[1]

Diabetic patient play the main role in the management of their disease. Adequate knowledge of their disease state and self-directed patient care will improve the health of their patients. Some studies have indicated a high prevalence of diabetes complication due to lack of knowledge of self-directed care and practice in diabetic patient group.[2]

Diabetic mellitus is most the common non-communicable disease globally. It is undoubtedly one of the most challenging health problems in the 21st century. It is the fourth leading cause of death in developed countries. According to International Diabetes Federation (IDF) 366 million people have diabetes in 2011 and it is expected to be increased up to 552 million by year 2030. The number of people with type 2 diabetes is increasing in every country. Most (80%) of people with diabetes live in low and middle-income countries. The greatest numbers of people with diabetes are between 40-59 years of age. In 2011, 4.6 million populations were death caused by diabetes.[3]

Diabetes is the seventh leading cause of death in United State (U.S). Diabetes is the leading cause of kidney failure, non traumatic lower limb amputation, heart disease, stroke and new cases of blindness among adults in U.S. diabetes affects 25.8 million people i.e. 8.3% of the U.S population. Among them 18.8 million people are diagnosed and 7.0 million

people are undiagnosed.[4]

In 2011, there were 71.4 million people with diabetes in South East Asia region, this number is expected to increase to 120.9 million by 2030. In 2011, IDF estimated that India alone has 61.3 million people living with diabetes; this places India second to China. South-East Asia region also has one of the highest estimated of prevalence of type 1 diabetes in children. In 2011, an estimated 18,000 children under the age of 15 developed type 1 diabetes.[5] According to latest WHO date published in April 2011 diabetes mellitus death in Nepal reached 3,224 or 2.17% of total deaths. There are estimated 800,000 people with diabetes in Nepal who spend 10 billion rupees in their treatment.[3]

Diabetes mellitus cause serious complication. So self care of diabetes is essential for to control of disease and improvement of quality of patient's life. With its dramatically increasing global prevalence and the high clinical and social costs associated with it, diabetes mellitus is one of the major public health concerns worldwide. Diabetes care is very complex, required life-long commitment and requires modification of one's personal life-style. Daily self care is needed to control blood sugar.[2]

The trend of diabetes is increasing day by day. In the country like Nepal, many Nepali people are backward about the awareness of diabetes and its care. There is also lack of awareness about the intervention for proper management of diabetes and to prevent from its complications. In order to prevent from serious complication related to diabetes, diabetes patient need to change their life style by following the proper diet, regular exercise, regular care of foot, eye and oral hygiene and adherence to their treatment plan. All these preventive measure helps to promote the healthy life of patient and minimize the risk of complication. Self-management is the cornerstone of diabetes care and patients are responsible for the day to day control of their diabetes.

METHODS

A cross sectional descriptive study was conducted in Medical OPD, Surgical OPD and Medical ward of Western Regional Hospital, Pokhara among 60 patients who were diagnosed as diabetic patients. Non-probability purposive sampling technique was used for the study. Semi-structured interview questionnaire was prepared. It consists of three parts, which were socio demographic data, knowledge of the diabetic care, and information related variable. Data were collected after getting approval from concerned authority. Anonymity and confidentiality of the respondents were maintained throughout the study. The data were primarily collected after

obtaining informed consent. Validity of the instruments was maintained by incorporating expert's opinion, avoiding direct leading and duplicating question and through extensive literature review. Pretesting was performed in 10% of the total sample size in another similar setting which was excluded from the study and minor modifications on tool were made as well.

Data were analyzed by using descriptive statistics like frequency distribution, mean, percentage and standard deviation using SPSS (Statistical Package for Social Science) 16 version. Data were presented on table.

RESULTS

Table 1: Socio demographic characteristic   **n=60**

Variables	Frequency	Percentage
Age in years		
30-40	8	13.3
40-60	34	56.7
Above 60	18	30.0
Sex		
Male	29	48.3
Female	31	51.7
Place		
Urban	44	73.3
Rural	16	26.7
Education status		
Illiterate	6	10.0
Informal	7	13.0
Primary level	20	42.6
Secondary level	18	38.3
Higher secondary and above	9	19.2
Occupation		
Agriculture	28	46.7
Business	12	20.0
Housewife	11	18.3
Service	9	15.0

Table 1 revealed that more than half (56.7%) of respondents were between 40-60 years age group followed by more than half (51.7%) of respondents were female. Majority (73.3%) of the respondents reside in urban area. Less than half (42.6%0 of respondents have received primary education as considering less than half (46.7%) were engaged in agriculture.

Table 2: Disease condition

Description	Frequency	Percentage
Duration of Diabetes (n=60)		
Less than 1 years	5	8.3
1-3 years	32	53.3
4-6 years	11	18.3
7-9 years	9	15.0
More than 10 years	3	5.0
Family history of diabetes (n=60)		
Yes	28	46.7
No	32	53.3
Family member of Diabetes (n=28)		
Father	12	42.9
Mother	14	50.0
Other	2	7.1
Insulin administration (n=60)		
Yes	26	43.3
No	34	56.6
Source of Information about Diabetic care*		
Radio/TV	46	76.7
Newspaper	20	33.3
Mass media	17	28.3
Family/ Neighbor	29	48.3
Relatives	26	43.3
Health worker/ institution	54	90.0

*Multiple responses

Table 2 revealed that more than half (53.3%) of the respondents had suffered from diabetes duration of 1-3 years. More than half (53.3%) of respondent had no history of diabetes. Among the family history 50% had history of diabetes to the respondent's mother. Less than half (43.3%) of respondents used insulin syringe and cent percent had correct knowledge about time of insulin administration. Most (90%) of respondents received information about diabetes care from health worker/ institution.

Table 3: Knowledge on disease   n=60

Description	Frequency	Percentage
Diabetes is controllable		
Yes	46	76.7
No	14	23.3
Diabetes may cause complication		
Yes	21	35.3
No	39	64.7

Diabetes care*

Diet	60	100
Exercise	58	96.7
Oral care	25	41.7
Eye care	40	66.7
Foot care	33	55.0
Blood sugar monitoring	56	93.3

*Multiple responses

Table 3 showed that majority (76.7%) of respondents thought that diabetes is controllable disease. Less than half (35%) of respondents thought that diabetes may cause complication. Cent percentage respondent had knowledge about diabetes care. Cent percent of respondents had knowledge regarding diabetes diet and most (96.7%) of respondents explained about exercise.

Table 4: Knowledge on diet and exercise   n=60

Description	Frequency	Percentage
Daily diet		
Yes	37	61.7
No	23	38.3
Fasting		
Yes	1	1.7
No	59	98.3
Duration of Exercise		
4 times a week for 30-40 minute per day	5	8.3
5 times a week for 30 minute per day	9	15.0
Daily for 30 minute	27	45.0
Daily for one hour	19	31.7

Table 4 demonstrated that the more than half (61.7%) of respondents had knowledge regarding diabetes diet. Majority of respondents (98.3%) had knowledge that diabetes patient cannot take fasting. Cent percent of respondents had knowledge about importance of exercise. Less than half (45%) of respondents had knowledge about exercises that diabetic patient should perform exercise daily for 30 minute.

Table 5: Knowledge on diabetes care   n=60

Description	Frequency	Percentage
Oral care		
Yes	13	21.7
No	47	78.3

Interval of Eye examination

every yearly	19	31.7
every 6 month	30	50.0
every 3 month	4	06.7
once in a life	7	11.7

Foot care

Yes	15	25.0
No	45	75.0

Frequency of Blood Test in Diabetes

Every month	19	31.7
Every 2 month	25	41.7
Every 3 month	10	16.7
Every 4 month	2	03.3
Every 6 month	4	06.7

Table 5 revealed that one fourth (21.7%) of respondents had knowledge of maintaining oral health. Cent percent respondents had knowledge about importance of eye examination. Half (50%) of respondents had correct knowledge about interval of eye examination i.e. every 6 month. Cent percent respondents had knowledge about importance of foot care. One fourth (25%) of respondents had knowledge of maintain foot care. Most (96.7%) of respondents mentioned that nail cutter is safest instrument for cutting nail. Cent percent respondents had knowledge about importance of blood test. Less than half (41.7%) of respondents mentioned that blood test should be done in every 2 months.

Table 6: Knowledge level on diabetes care   n=60

Knowledge level	Frequency	Percent
Poor	11	18.3
Satisfactory	42	70.0
Good	7	11.7
Mean±SD	17.88±2.45	

Table 6 showed that very least (11.7%) of respondents pose good knowledge and majority (70%) had satisfactory knowledge and very least (18.3%) had poor knowledge.

DISCUSSION

The present study illustrated that more than half (61.7%) of respondents had knowledge regarding diabetes diet and less than half (45%) of respondents exercises daily 30 minute. Similar but slightly increasing pattern was found in studies that more than half of respondents were aware of diabetes food and daily exercise.[6]

The present study depicted that one fifth (21.7%) of respondents had good knowledge of maintaining oral health. Similar finding were reported which was conducted in south India that less than ten percentages (7%) of respondents had knowledge regarding dental care and three percentages were visiting a dentist regularly.[7]

The finding study revealed that half (50%) of respondents had correct knowledge about interval of eye examination i.e. every 6 month. The finding is supported to study reported that half (52%) of respondents had knowledge about regular interval of eye examination.[8]

The finding study showed that one-fourth (25%) of respondents had knowledge about activities of foot care. The finding of study is supported that less than one fourth (12.64%) of respondents knew about foot care.[9]

The finding this study exhibited that one third (31.7%) of respondents had correct knowledge about interval of blood test in every monthly. The finding of study is unmatched which revealed that one third of respondents had knowledge regarding blood sugar examination at regular interval. [7]

The finding of study displayed that most (90%) of respondents received information about diabetes care from health worker. The result is matched to study that majority (78%). of respondents received the information by health profession.[10]

The finding of study illustrated that three- fourth (70%) of respondents had satisfactory knowledge about diabetes care. The finding is supported by study which revealed that three fourth (74%) had satisfactory knowledge.[11]

CONCLUSION

From this study, it is concluded that respondents had satisfactory knowledge. Knowledge regarding diabetic care on exercise, oral care, eye care, foot care and frequency of sugar monitoring is found low as compare to knowledge regarding diet.

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