

Lifestyle Practices Among Type 2 Diabetic Patients



Nursing

KEYWORDS : Diabetes Mellitus type 2, Lifestyle, Practice

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ABSTRACT

The type 2 diabetes mellitus continues to rise as a real threat especially in the developing world. The objective of the study was to find out the lifestyle practices among type 2 diabetic patients attending medical OPD of Bharatpur Samudayik Hospital, Chitwan. A descriptive cross sectional research design was used in which 161 patients were interviewed. Data was statistically analyzed by using independent t-test and ANOVA test.

The study findings revealed that respondents' total mean and standard deviation lifestyle practices score was 16.94 ± 3.95 . The percent of the mean score was 52.93%. The lifestyle practices score was statistically significant with occupation ($p=0.001$) and availability of IEC materials (0.001). The exercise practice is statistically significant with occupation (0.002) and the weight maintenance practice is statistically significant with gender (0.035), educational status (0.006) and occupation (0.004).

It was concluded that the lifestyle practices was good among the diabetic respondents who were involved in service and have got information through IEC materials like books, posters, etc.

INTRODUCTION

Diabetes Mellitus a major non communicable disease has risen dramatically over the past two decades, from an estimated 30 million cases in 1985 to 285 million in 2010. Based on current trends, the international diabetes federation projects that 438 million individuals will have diabetes by the year 2030. (Shaw, Sicree & Zimmet, 2010).

Among the four countries in SAARC region (Bangladesh, India, Nepal, Pakistan), Nepal has the highest rate of Diabetes Mellitus with 14.1% in urban region. (White & Rafique, 2002).

According to the latest WHO data (April, 2011) Diabetes Mellitus related deaths in Nepal reached 3,224 (2.17%) of the total deaths. The age adjusted death rate is 22.59 per 100,000 of population, Nepal ranks at 115 in the world (Nepal Health Profile, 2011).

Diabetes requires a lifelong management plan, and persons with diabetes have a central role in this plan. Lifestyle related risk factors play an important role in the development of type 2 Diabetes Mellitus. (Klein, Sheard, Pi-Sunyer, Daly, Wylie & Kulkarni, 2004).

The cross sectional study on knowledge, attitude and practices related to diabetes among community members in four provinces in Kenya with 2000 respondents shows that 59% had bad practices in relation to diabetes prevention, 75% of the people interviewed had poor dietary practices, 72% did not participate in regular exercise and over 80% did not monitor their body weights (Maina, Ndegwa, Njenga & Muchemi, 2010).

Lifestyle practices have key role in the management of diabetes. As Diabetes Mellitus is one of the major reasons for mortality and morbidity in Nepal, there is a desperate need of health education program for diabetic and general public by using variety of media. Hence researcher felt need to conduct study on this topic.

MATERIALS AND METHODS

It was a descriptive cross sectional study. All diabetes type 2 patients according to the treatment card who come to medical OPD of Bharatpur Samudayik Hospital, Bharatpur-10 were the study population and study area respectively. Sample size was 161. Non-probability, purposive sampling technique was used for data collection from September-October 2013 in a month time.

Approval from the Chitwan Medical College - Institutional Review Board was taken prior to the study. The patients who were

available during data collection time and willing to participate in the study were included. Pretested semi structured face to face interview questionnaire was used.

The data was analyzed by using SPSS 16 version. Descriptive statistics and inferential statistics i.e. independent t- test and F- test (one way ANOVA) was used for data analysis.

RESULTS

TABLE 1

Socio-demographic Characteristics of the Respondents n=161

Variables	Frequency	Percent
Age group		
>40 years	19	11.8
40-60 years	92	57.1
<60 years	50	31.1
Gender		
Male	78	48.4
Female	83	51.6
Residence		
Urban	110	68.3
Rural	51	31.7
Educational status		
Illiterate	38	23.6
Literate	123	76.4
Occupation		
Service Holder	22	13.7
Business	24	14.9
Farmer	25	15.5
Housewife	75	46.6
Others	15	9.3

Table 1 showed that out of 161 respondents, 57.1% respondents were between age group 40-60 years. Majority of the respondents (51.6%) were female and 68.3% of the respondents were from urban areas. Majority of the respondents (76.4%) were literate. Concerning the occupation of the respondents, 46.6% respondents were housewives followed by farmers with 15.5%.

TABLE 2
Respondents' Source of Receiving Counseling and IEC Materials about Lifestyle Practices

Variables	Frequency	Percent
Receive counseling from treatment center (n=161)		
Yes	146	90.7
No	15	9.3
If yes, sources for receiving counseling* (n=146)		
Doctors	142	84
Nurses	8	4.7
Paramedics	1	0.6
Dieticians	1	0.6
Medical students	3	1.8
Nursing students	3	1.8
Others	11	6.5
Availability of IEC materials (n=161)		
Yes	103	64
No	58	36
If yes, sources of IEC materials* (n=103)		
Books	76	40.6
Internet	6	3.2
Magazines /Newspaper	26	13.9
Pamphlets/ Posters	31	16.6
Radio	11	5.9
Television	32	17.1
Others	5	2.7

***Multiple Responses**

Table 2 showed that majority (90.7%) of the respondents had received counseling regarding diabetes lifestyle practices from treatment center. Out of 146 respondents who received counseling from treatment center, 84% had received counseling regarding lifestyle practices of diabetes from doctors. Out of 161 respondents, 64% of the respondents had received IEC materials regarding lifestyle practices of diabetes. Out of 103 respondents who received IEC materials, 40.6% of the respondents received it through books and only 2.7% respondents received it through others such as role play, relatives, and friends.

Table 3
Respondents' Lifestyle Practice Scores on Diabetes
n=161

Practice Variables	Mean Score ± SD	Percent of Mean Score	Range	Maximum Possible Score
Dietary	9.96 ± 2.19	58.58	4-15	17
Exercise	3.11 ± 1.92	34.55	0-7	9
Weight maintenance	3.86 ± 1.69	64.33	0-6	6
Total	16.94 ± 3.95	52.93	6-27	32

The total mean practice score of the respondents is 16.94 with 3.95 of standard deviation, 52.93% of mean score, range 6-27 and maximum possible score is 32. As the total percentage of mean score is above 50%, the lifestyle practice is found to be good.

Table 4
Lifestyle Practice Scores with Occupation and availability of IEC materials
n=161

Demographic Variables	Mean (SD)	F/ t value	p - value
Occupation (n=161)			
Service holder	19.23(3.63)		
Business	16.88(3.31)		
Farmer	14.40(4.40)	5.00 ¹	0.001 ¹
Housewife	16.99(3.75)		
Others	17.67(3.55)		
Availability of IEC materials			
Yes	17.71(3.92)	-3.40 ²	0.001 ²
No	15.57(3.65)		

Significance level at 0.05 ANOVA is computed for p-value1 t-test is computed for p-value2

The lifestyle practice scores is found to be statistically significant (p= 0.001) with occupation and availability of IEC materials (p=0.001). The good lifestyle practice is found among service holder as its mean score is higher 19.23(3.63) than the rest of the other occupations and the diabetic respondents who had got information through IEC materials like books, posters, pamphlets etc. had good lifestyle practice than those who had not got IEC materials.

Table 5
Exercise Practice Scores with Occupation
n=161

Variables	Mean (SD)	F/t value	p- value
Occupation			
Service holder	3.82(1.18)	4.560 ¹	0.002 ¹
Business	2.92(1.86)		
Farmer	2.12(2.38)		
Housewife	3.04(1.86)		
Others	4.40(1.35)		

Significance level at 0.05 ANOVA is computed for p-value¹

The exercise practice score is statistically significant (p=0.002) with occupation of the respondents. The good exercise practice is found among respondents with others including industrial worker, laborer and retired service person as its mean score is higher 4.40(1.35) than rest of the occupations.

TABLE 6
Weight Maintenance Practice Score with Gender, Education and Occupation
n=161

Variables	Mean(SD)	F/ t value	p-value
Gender			
Male	4.15(1.67)	2.128 ²	0.035 ²
Female	3.59(1.68)		
Educational status			
Illiterate	3.21(1.51)	-2.76 ²	0.006 ²
Literate	4.07(1.70)		
Occupation			
Service holder	5.05(1.36)	4.042 ¹	0.004 ¹
Business	3.62(2.08)		
Farmer	3.20(1.38)		
Housewife	3.81(1.60)		
Others	3.87(1.72)		

Significance level at 0.05 ANOVA is computed for p-value1 t-test is computed for p-value2

Weight maintenance practice score is statistically significant with the gender (p=0.035), educational status (p=0.006) and occupation (p=0.004) of the respondents. The good weight maintenance practice is found among male respondents as its mean practice score is 4.15(1.67) which is higher than that of female 3.59(1.68), those who were literate 4.07(1.70) and are involved in service 5.05(1.36).

DISCUSSION

The lifestyle practice among diabetic patients is not statistically significant with family history of the diabetes (p=0.626). The study is not supported by the literature of Ulvi et.al (2009) which stated that the family history of diabetes mellitus was statistically significantly associated with awareness about diabetes mellitus(p=0.001).

Concerning the dietary practice of the respondents, majority of the respondents 90.1% of them were taking their meal as prescribed by the doctors. This study is supported by the literature of Chaudhary, Chaudhary, Masood & Qadri (2010) which stated that 69.5% of the respondents had diabetic diet regimen.

Regarding exercise practice of the respondents, 70.2% were doing exercise regularly. Brisk walking was the most common form

of exercise (58.3%). This finding is supported by the study done by Chaudhary, Chaudhary, Masood & Qadri (2010) which stated that 52.4% of the respondents did regular exercise. Also the another study that supported this finding was of Malagi, Naik & Babruwad (2007) which stated that 86% of the respondents exercised daily and walking was the most common form of exercise (93%). The exercise practice score is statistically significant with occupation ($p=0.002$) of the respondents. Conversely the study is not supported by the literature of Chaudhary, Chaudhary, Masood & Qadri (2010) which stated that the regular exercise was more significantly observed in males ($p=0.002$), higher education ($p=0.003$) and in those patients who were on oral plus insulin medication (0.004).

Concerning weight maintenance practice, 93.8% were taking weights regularly. This finding is not supported by the literature of Ulvi et al. (2009) which stated that 60.7% of the respondents do not have the knowledge of own weight. Likewise another study that does not support this study is of Maina, Ndegwa, Njenga & Muchemi (2010) which stated that 80% of the respondents did not monitor their body weight. The weight maintaining practice score is statistically significant with gender ($p=0.035$), educational status ($p=0.006$) and occupation ($p=0.004$) of the respondents.

CONCLUSION

Lifestyle practice among type 2 diabetic patients in this study was measured in term of factors like dietary, exercise, and weight maintenance practice. Regarding the mean score and standard deviation for all scales of the lifestyle practice for a total of 161 type 2 diabetic patients were 16.94 ± 3.95 , the percent of the mean score was 52.93%.

Higher the mean score, good is the lifestyle practice among diabetic respondents. As the percentage of mean score is more than 50 (i.e. 52.93%), it shows that the lifestyle practice is good among the diabetic respondents. Though the lifestyle practice is above 50%, the result is not satisfactory yet. Continuation and encouragement for awareness program with strong motivation are bound to bring about positive changes in lifestyle practices with regard to diabetes control.

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