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Original Research Article

Comparison of knowledge, attitude and practice of diabetic patients taking treatment at private and public health centre in an urban area

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ABSTRACT

Background: Diabetes is undoubtedly one of the most challenging health problems of the 21st century. Diabetes and its complications are major causes of early death in most countries. According to IDF approximately 5.1 million people aged between 20 and 79 years died from diabetes in 2013, accounting for 8.4% of global all-cause mortality among people in this age group. With 1.2 million deaths in 2013, this region [SEA] has the second highest number of deaths attributable to diabetes of any of the seven IDF regions. That figure represents 14.2% of all adult deaths in the Region. India is the largest contributor to regional mortality, with 1.1 million deaths attributable to diabetes in 2013.
Methods: The study was a cross sectional study to compare the knowledge, attitude and practice of diabetic patients taking treatment at private and public health centre in an urban area. This study was conducted in a city of field practice area of our medical college, during the period of July 2016 to October 2016. We purposively selected 50 diabetic patients from public health centre and 50 diabetic patients from Private health centre. Diabetic patients were interviewed based on our predesigned pretested questionnaire.
Results: 54% diabetic patients taking treatment at private health centre had average to good knowledge as compared to 28% at public health centre. 34% diabetic patients taking treatment at private health centre had positive attitude as compared to 6% at public health centre. 20% diabetic patients taking treatment at private health centre had average to good practice as compared to 6% at public health centre.
Conclusions: Knowledge, attitude and practice of diabetic patients taking treatment at private health centre were better than taking treatment at public health centre.

Keywords: Public health centre, Private health centre, Diabetes mellitus

INTRODUCTION

Diabetes is the most common metabolic syndrome and one of the most common non-communicable diseases [NCDs] in the world. It is the fifth leading cause of death in world. Diabetes is undoubtedly one of the most challenging health problems of the 21st century.[1,2] In 2013, according to International Diabetes Federation's [IDF's] most recent estimates indicate that 8.3% of adults – 382 million people – have diabetes, and the number of people with the diabetes is set to rise beyond 592 million in 2035.

Type 2 diabetes accounts for 85% to 95% of all diabetes cases. IDF estimates that as many as 175 million people worldwide, or close to half of all people with diabetes,

are unaware of their disease. Most of these cases are type 2 diabetes. Almost half of all adults with diabetes are between the ages of 40 & 59 years.[2,3]

Diabetes and its complications are major causes of early death in most countries. According to IDF approximately 5.1 million people aged between 20 and 79 years died from diabetes in 2013, accounting for 8.4% of global all-cause mortality among people in this age group. India is the largest contributor to regional mortality, with 1.1 million deaths attributable to diabetes in 2013.[2]

Although the Indian urban population has access to reliable screening methods and anti-diabetic-medications, such health benefits are not often available to the underprivileged patients.[4] Inadequacies contribute to an infrastructure that may result in poor diabetes screening and preventive services, non- adherence to diabetic management guidelines, lack of available counseling, and long distance travel to health services. These populations were more likely to suffer from diabetic complications.[5] In India, limited studies have focused on diabetes care and provide an insight into the current profile of patients and their management.[6]

METHODS

The present study was conducted to compare the knowledge, attitude and practice of diabetic patients taking treatment at private and public health centre in an urban area. The study was a comparative cross sectional case control study, conducted in a city of field practice area of our medical college, during the period of July 2016 to October 2016. We purposively selected 50 diabetic patients from public health centre and 50 diabetic patients from Private health centre.

Study subjects

Previously diagnosed diabetic patients with age of ≥20 years were regarded as the study subjects and included in the study.

Inclusion criteria

Inclusion criteria were previously diagnosed diabetic patients aged ≥20 years; who were permanent resident (>6 months) of study area; who had given written informed consent.

Exclusion criteria

Exclusion criteria were patients who were in other areas during data collection; patients aged <20 years; patients who were not willing to participate in the study.

Ethical consideration

Ethical clearance of the study was obtained from ethical committee of our medical college. Informed written consent of each of the participant was obtained.

Sampling technique

We took 50 diabetic patients from the only public health centre in this area; and 50 diabetic patients from two well-known private practioner from that area. Basic socio- demographic information; questions regarding knowledge, attitude and practice was filled by investigator by face to face interview. The questionnaire used in this study was created by using questions from existing validated questionnaires in the 'spoken knowledge in low literacy in diabetes knowledge assessment scale' (SKILLD) and from similar researches by Upadhyay et al and Singh et al.[7-9]

Table 1: Showing scoring system for knowledge, attitude and practice.

Knowledge score (Total=13)	Attitude score (Total=7)	Practice score (Total=8)
Poor knowledge (0-6)	Negative attitude (0-3)	Poor practice (0-4)
Average knowledge (7-10)	Neutral attitude (4-5)	Average practice (5-6)
Good knowledge (11-13)	Positive attitude (6-7)	Good practice (7-8)

Data analysis

Statistical analysis was carried out with help of statistical measures, such as percentages, proportion, bivariate analysis and multiple logistic regressions along with other necessary statistical tools and techniques, using SPSS version 23.

RESULTS

54% diabetic patients taking treatment at private health centre had average to good knowledge as compared to 28% at public health centre.

34% diabetic patients taking treatment at private health centre had positive attitude as compared to 6% at public health centre.

20% diabetic patients taking treatment at private health centre had average to good practice as compared to 6% at public health centre.

DISCUSSION

Health care of diabetes involves counseling of diabetic patient after diagnosis, explaining nature of disease, treatment plan; self-care and future follow ups, so that compliance of the patient to the treatment will be better. Better counseling at every visit raises knowledge of the patient about diabetes; bring out healthy attitude and better self-care. Our objective was to study the knowledge, attitude and practice about nutrition, exercise, care of diabetes during illness, and medications regarding

diabetes mellitus; and to see were any difference at public and private health care center. There were very few studies which actually compare the knowledge, attitude and practice of diabetic patients at public and private health care centers.

Table 2: Demographic profiles of diabetic patients taking treatment at private and public health centre.

Demographic profiles		Private (50)	Public (50)	P value
Age	20-45	8	8	0.35
	46-60	16	17	
	>60	26	25	
Sex	Male	26	18	0.16
	Female	24	32	
Religion	Hindu	30	34	0.47
	Muslim	19	16	
	Others	1	0	
Education	Illiterate	16	30	0.07
	Primary	7	7	
	Middle	8	5	
	High	8	6	
	Inter/diploma	5	1	
	Graduate/PG	4	1	
	Professional	2	0	
Occupation	Unemploid	19	27	0.02
	unskilled	1	4	
	Semiskilled	0	2	
	Skilled	19	11	
	Clerk/Farmer/Shop owner	5	6	
	Semiprofessional	6	0	
	Professional	0	0	

Demographic profiles of study participants shows that there were no any significant difference between age, sex, education and religion of diabetic patients taking treatment at private and public health centres. There is significant difference in occupation of diabetic patients taking treatment at private and public health centres (Table 2).

Table 3: Knowledge of diabetic patients taking treatment at private and public health centre.

		Private (%)	Public (%)	P value
Knowledge	Poor	23 (46)	36 (72)	0.01
	Average	21 (42)	13 (26)	
	Good	6 (12)	1 (2)	

In this study we found that patients taking treatment at public health centre; 72% diabetic patients had poor knowledge, 26% had Average and 2% had good knowledge (Table 3). Similar finding from Dr. Sangra et al, Ahmad and Ahmad and Naveen.[10-12]

In this study we found that patients taking treatment at private health centre; 46% diabetic patients had poor knowledge, 42% had Average and 12% had good knowledge. Similar findings from Hawal et al and Vankudre et al.[13,14]

Table 4: Attitude of diabetic patients taking treatment at private and public health centre.

		Private (%)	Public (%)	P value
Attitude	Negative	26 (52)	40 (80)	0.001
	Neutral	7 (14)	7 (14)	
	Positive	17 (34)	3 (6)	

Table 4 suggests that patients taking treatment at public health centre; 80% diabetic patients had negative attitude, 14% had neutral and 6% had Positive attitude. Similar findings from Gupta et al, Dr. Sangra et al, Ahmad, Ahmad and Naveen.[10-12,15]

Table 4 suggests that patients taking treatment at private health centre; 52% diabetic patients had negative attitude, 14% had neutral and 34% had positive attitude.

We found that patients taking treatment at public health centre; 94% diabetic patients had poor practice, 6% had Average or good practice (Table 5). Similar finding from Gupta et al, Dr. Sangra et al, Ahmad and Ahmad and Naveen.[10-12,15]

In this study we found that patients taking treatment at private health centre; 80% diabetic patients had poor practice, 20% had Average or good knowledge (Table 5).

Similar finding from Hawal et al and Mangaiarkkarasi et al (2012).[13,16]

Table 5: Practice of diabetic patients taking treatment at private and public health centre.

		Private (%)	Public (%)	P value
Practice	Poor	40 (80)	47 (94)	0.04
	Average	5 (10)	3 (6)	
	Good	5 (10)	0 (00)	

CONCLUSION

Knowledge, attitude and practice of diabetic patients taking treatment at private health centre were better than taking treatment at public health centre.

Recommendations

Doctors working at public health care centre should give adequate and repeated counseling regarding comprehensive diabetic care.

Limitations

The study was conducted in a city which is a field practice area of our medical college. This area may not be representative of the other urban area of India.

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Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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