Diabetes Related Knowledge, Attitude and Practice among Diabetic Patients Attending at Chittagong Medical College Hospital

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ABSTRACT

Background: *Increased awareness among large population groups is a major determinant for the prevention of diabetes and its complications. Knowledge and attitude are the principal markers of awareness that need to be studied in various population groups in specific racial and cultural contexts. Therefore, good Knowledge, Attitude and Practices (KAP) regarding diabetes are necessary in promoting care. This study aimed to explore Knowledge, Attitude and Practices (KAP)-regarding Diabetes Mellitus (DM) among diabetic patients attending in Chittagong Medical College Hospital.*

Materials and methods: *This cross-sectional study was conducted from January 2022 to December 2022 among 289 diabetic patients from the outpatient department of Chittagong Medical College Hospital, Chattogram. KAP were assessed by a pre-structured, interviewer-administered questionnaire and categorized using predefined scores of poor (<< 30%), average (30-70%) and good (≥70%). Chi-square test was done to examine the association between diabetes related KAP and other covariates.*

Results: *Out of 289 participants 167(57.8%) of the participants had good knowledge, 208 (72%) had positive attitude and 173 (60%) had good practice related to DM. Poor knowledge was significantly associated with female gender (p=0.010), being housewife (p=0.023) and low socioeconomic status (p <0.001).*

Conclusion: *Present study identified some gap in KAP related to DM and some factors related to poor knowledge, negative attitude and poor practices among the diabetic patients, which highlighted the need of more comprehensive approach for DM related management in the study hospital.*

Key words: Attitude; Diabetes; Knowledge; Practice.

Introduction

Diabetes mellitus (DM) is one of the most prevalent Non-Communicable Diseases (NCD) threats to global public health and is growing rapidly. The incidence of diabetes show a disproportionate increase in developing countries due to the rapid shift in current demographics from traditional lifestyles to more Western and urban lifestyles.[1] A 2007 United Nations (UN) resolution recognized diabetes as a major global public health problem.[2]

A decade ago diabetes was not considered a major public health problem in developing countries like Bangladesh, but by 2015 the situation had changed dramatically. In 2012, the International Diabetes Federation (IDF) estimated that 3.8 million or 4.8% of people living in Bangladesh have diabetes. By 2025, that number is projected to grow to 7.4 million or 6.1% of the population. In terms of the number of diabetic patients, this explosion will move Bangladesh from 10th to 7th among the top 10 countries by 2025. By then 80% of all diabetes cases will occur in lower and middle socioeconomic classes with poor knowledge of diabetes.[3] Knowledge plays an important role in future disease development and its early prevention and detection. Positive Knowledge, Attitudes and Practices (KAP) are important for DM patients. The elements of KAP are interrelated and interdependent. If the level of one element is high, her other two factors should be positively affected. KAP related to diabetes varies greatly with socioeconomic conditions, cultural beliefs and practices. Knowledge about diabetes can prevent the impending chronic

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comorbidities of DM that significantly impair the quality of life of diabetic patients. Information can help people assess their diabetes risk, motivate them to seek appropriate treatment and care, and encourage them to take responsibility for their disease throughout their lives.[4] A literature review of knowledge about diabetes in developing countries revealed that few studies addressed diabetes awareness among people with the disease and virtually no data exist for the population as a whole.[5,6] Several clinically valid studies on diabetes knowledge among non-diabetic and diabetic patients have been conducted in Bangladesh.[7,8] Even in other developing countries, such research has focused primarily on people with diabetes and is mostly clinically relevant. The need to increase is supported by previous KAP studies.[9] This study aimed to explore good Knowledge, Attitude and Practices (KAP)- regarding Diabetes Mellitus (DM) among diabetic patients attending in outpatient department of Chittagong Medical College Hospital.

Materials and methods
This study was a descriptive type of cross-sectional study conducted in Outpatient Department of Chittagong Medical College Hospital, during the period January 2022 to December 2022. Total 289 patients were enrolled in this study. Convenience type of non probability sampling technique was applied.

Inclusion criteria
i) Known cases of DM
ii) Both genders
iii) Age more than 18 years.

Exclusion criteria
i) Gestational Diabetes Mellitus
ii) Diabetic patients with severe physical or mental illness.

Results

Table I showing socio demographic profile

Variable		Frequency	Percentage
Age	40-60 years	260	90
	>60 years	29	10
Gender	Male	158	54.7
	Female	131	45.3
Marital status	Single	30	10.4
	Married	259	89.6
Educational status	Higher secondary	189	65.4
	Honors and above	65	22.5
	Others	35	12.1
Occupation	Service holder	153	52.9
	Businessman	70	22.4
	Housewives	40	13.8
	Others	26	9
Socioeconomic Status	Lower middle class	145	50.2
	Middle class	129	44.6
	Others	15	5.2

The study shows that majority 260(90%) of the respondents were in the age group 40-60 years. Majority of respondents were male 158(54.7%). Respondents 236(81.7%) were predominantly Muslims and maximum of them were married 259(89.6%). Majority of the respondents 189(65.4%) education was higher secondary. Maximum of the respondents 153(52.9%) were service holder and 145(50.2%) belonged to lower middle class (Table I).
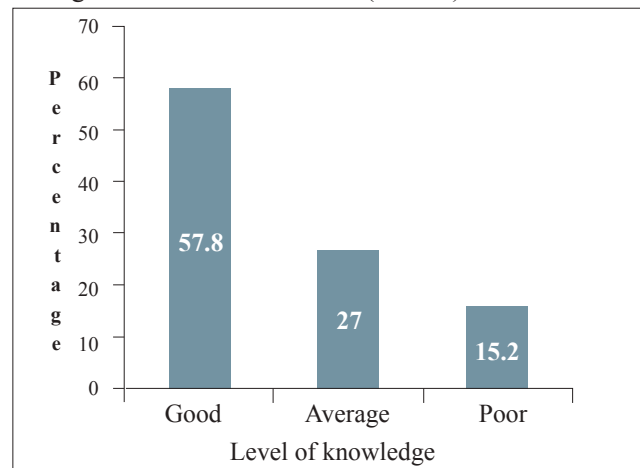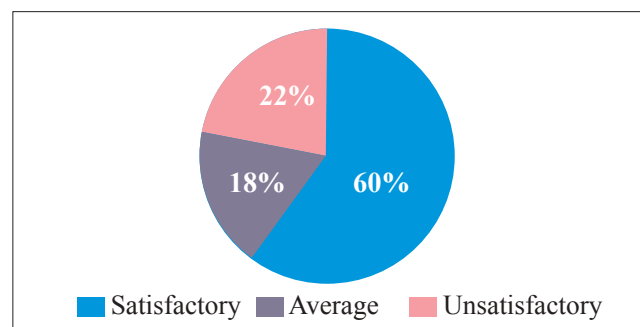

Figure 1 Level of knowledge (n=289)

Figure 1 shows that 57% have good knowledge and 15% have poor knowledge.
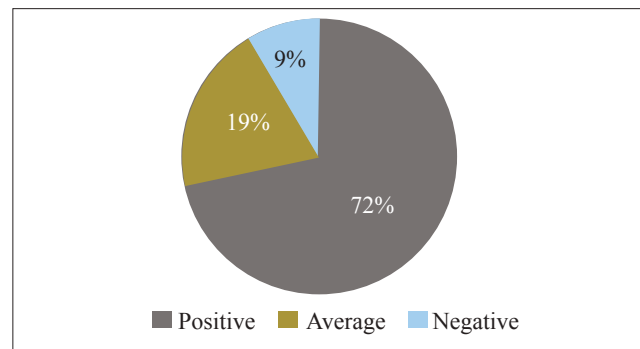
Figure 2 Level of attitude towards DM (n=289)

Figure 2 discloses that 72% had good attitude.

Figure 3 Level of DM related practice (n=289)

Figure 3 depicts that 60% respondents practice were satisfactory.

Table II Association between knowledge and socio demographic profile

Variable	Knowledge level			
	Good	Average	Poor	p-value
Age				
40-60 years	147(56.5%)	74(28.5%)	39(15.0%)	
>60 years	20(69.0%)	4(13.8%)	5(17.2%)	239
Gender				
Male	104(65.8%)	34(21.5%)	20(12.7%)	
Female	63(48.1%)	44(33.6%)	24(18.3%)	.010*
Education				
Higher secondary	113(59.8%)	49(25.9%)	27(14.3%)	
Honors & above	37(56.9%)	17(26.2%)	11(16.9%)	
Others	17(48.6%)	12(34.3%)	6(17.1%)	.780
Occupation				
Service holder	90(58.8%)	40(26.1%)	23(15.0%)	
Businessman	43(61.4%)	22(31.4%)	5(7.1%)	
Housewives	16(40.0%)	14(35.0%)	10(25.0%)	
Others	18(69.2%)	2(7.7%)	6(23.1%)	.023*
Marital Status				
Single	18(60.0%)	8(26.7%)	4(13.3%)	
Married	149(57.5%)	70(27.0%)	40(15.4%)	.947
Socioeconomic status				
Upper middle class	11(73.3%)	4(26.7%)	0(0%)	
Middle class	91(70.5%)	29(22.5%)	9(7.0%)	
Lower middle class	65(44.8%)	45(31.0%)	35(24.1%)	<.001*

Discussion

The present study shows that 57.8% respondents have good knowledge (Fig-I) regarding DM, 72% have positive attitude (Fig-II) and 59.9% respondents have satisfactory practice (Fig-III) regarding DM. The proportion of KAP is 15%, 10% and 17% in a similar study done in Bangladesh.[9]

The overall KAP proportion for good, average and poor knowledge regarding DM in this study 57.8%, 27% and 15% respectively. The proportion of good, average and poor knowledge scores among T2DM subjects were 15%, 68% and 17% respectively.[9] In the current study the mean age of the respondents is 50.2 years (Table I) whereas in another study conducted in Dhaka mean age 46 years and in Pakistan the mean age was 32.9 years which is evident from another study.[9,10] Gender wise in this study, males were 54.7% whereas females were 45.3%. In a similar study in Tehran, the proportion of male and female participants were same.[11] Maximum (89.6%) respondents were married, where as in a similar study which is conducted in Dhaka 83.2% respondents were married. Taking occupation into consideration in the present study 52.9% respondents were service holder, 22.4% had their own business, 13.8% were housewives. In a study conducted in Dhaka the percentage of service holder was 25%, 28% housewives and 33% had their own business.[9] 22.5% were graduate and 65.4% had passed higher secondary school. On contrary in a similar study in Hyderabad 14% were graduate, 57% passed higher secondary school.[12] The present study demonstrated significant association (Table II) between socioeconomic status of the respondents with their level of knowledge (p value is <0.001) which is similar in a study done in Dhaka where participants from higher which background and upper socio-economic class demonstrated significantly greater score in terms of KAP (p < 0.001).[10]

Limitation

As it was outpatient hospital based, the results may not be truly representative of all diagnosed diabetic patients in Bangladesh.

Conclusion

The study reveals that the respondent had good knowledge about DM and their attitude towards DM was positive. However there was a gap in their practice towards prevention and treatment of DM. There is a need of continuous medical education program for further improvement.

Recommendations

A hospital-based intervention program should be implemented in order to improve the KAP of patients regarding different aspects of DM.

Disclosure

All the author declared no competing interest.

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