

## Knowledge, Attitude and Practice about diabetes among diabetic patients in Sindh, Pakistan

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**Objective:** To assess the knowledge, attitude and practice of diabetic people regarding their disease.

**Methodology:** This descriptive cross sectional study was carried out with KAP questionnaire among the outpatients of four tertiary care hospitals of Sindh. The sample was chosen by using the random technique and duration of study was six months.

**Results:** The total 2500 questionnaire were distributed and 2025 returned, with response rate

81%. Patients aged 30 plus were 1865(29.09%). As per gender distribution, 1235(60.9%) were male and 790(39.1%) females. Besides this, 171(8.4%) were type I and 1854(91.5%) were type II diabetics.

**Conclusion:** Low literacy rate is main contributing factor in the low KAP score among the diabetic patients of Sindh, Pakistan. (Rawal Med J 201;43:4-7).

**Keywords:** Diabetes, knowledge, attitude, practice, Sindh.

### INTRODUCTION

Diabetes mellitus (DM) leads to multiple complications<sup>1,2</sup> like micro-vascular harm (retinopathy, nephropathy and neuropathy) and macro vascular complications.<sup>3-5</sup> As a result of diabetic complexities the economic burden is falling very heavy not only on the patients, society but also ultimately effects the economy of the country.<sup>6,7</sup> There is haphazard guidance because of lack of understanding of patients characteristics i.e personality and behavior.<sup>8</sup> The scarcity of masses familiarity about DM in Sindh, Pakistan where health services are not up to the mark.<sup>9</sup> Getting idea regarding the level of awareness about DM among population is very basic measure in designing the prevention program for diabetes.<sup>10</sup> Studies from India and USA have shown that educational programs which spread disease awareness had the potential to modify the attitude of masses about DM.<sup>11,12</sup> A very deep vacuum amidst knowledge and attitude in diabetic people was observed and the sound and knowledgeable programs can enhance the knowledge of the patients and alter their attitude.<sup>13</sup> Pharmacist can play more

role for the diabetic patients than just fill their prescriptions. They can counsel and impart the disease information to the patients.<sup>14,15</sup> The current study was made to assess the demographic details of diabetic people and to evaluate the knowledge, Attitude and practice (KAP) of such patients.

### METHODOLOGY

This cross sectional descriptive study was conducted for the period of six months 4 tertiary care Hospital of Sindh including tertiary care Hospital of Hyderabad, Larkana, Nawabshah and Jinnah tertiary care Hospital of Karachi from July 5, 2016 to January 7, 2017. Diabetic patients were with age ranging from 18 to 75 years were only included after ensuring their consent verbally. All those who did not show consent were excluded. The well structured KAP questionnaire was administered using sample random technique among 2500 patients. Out of these, 2025 patients returned the filled questionnaire with response rate 81%. The questionnaire was containing the questions about knowledge, attitude and practice and every right answer was awarded a score of 1 and

every incorrect answer was awarded score of 0. The patients' information like age, gender, family history of diabetes, medicines recommended, and response to knowledge, Attitude and practice was recorded. Data were analyzed using SPSS version 19 version.

**RESULTS**

A total of 2025 patients participated in the study. Table 1 shows the characteristics of the study subjects their age, residence types of diabetes and family history. Table 2 shows the knowledge levels of the patients. Table 3 is showing attitude and Table 4 is showing practice responses.

**Table 1. Characteristics of the subjects (n=2025).**

Variable		Number	%
Age	<30	160	7.9
	>30	1865	92.09
Sex	M	1235	60.9
	F	790	39.1
Education	>secondary	590	29.1
	< secondary	652	32.1
	Illiterate	783	38.6
Residence	Urban	743	36.6
	Rural	1282	63.3
Duration of DM	< 1 y	433	21.3
	1-5 y	561	27.7
	5-10 y	935	46.1
	Can't recall	96	4.47
Types of Diabetes	Type I	171	8.4
	Type II	1854	91.5
Family History	Not	350	17.2
	1st degree relative	1121	55.3
	2nd degree relative	554	27.3

**Table 2. Response to knowledge.**

Question	Number of patients answering correctly	%
Diabetes is a state in that the body contains .....	887	43.8
Causes of Diabetes.....	744	36.7
DM if not managed.....	671	33.1
The authentic ways to monitor DM.....	585	28.8
Effect of increased B.P on diabetic patient	705	34.8
A diabetic patient ought to check his/her B.P regularly	1263	62.3
Lifestyle changes for diabetic patients include	721	35.6
Should diabetic patient consult with physician once get eye problem	1340	66.1
Routinely Urine examination will help in....	592	29.2
The significant approach to get HbA1c under control	894	44.1
Can exercise benefit.....	1588	78.4
Proper diet included	854	42.1
For Footcare patient ought to	511	25.2
Diabetes Management and therapy includes	508	25.08
First aid in Hyperglycemia	498	24.5
First aid in Hypoglycemia	523	25.8

**Table 3. Response to attitude.**

Question	Number of patients answering correctly	%
Are you exercising daily	503	24.83
Is proper diet followed	692	34.17
Are you missing the doses of your medicines	202	9.97
Are you exercising parameters when meet hypoglycemia	523	25.82

**Table 4. Response to Practice questions.**

Question	Response	n=(%)
When was your B.P checked?	1 day before	311(15.3%)
	1 week before	367(18.12%)
	1month before	740(36.54%)
	3months before	607(29.9%)
When you got last eye examination by doctor	1 day before	437(21.5%)
	1 week before	389(19.2%)
	1month before	522(25.7%)
	3months before	677(33.4%)
How about last report of your urine test	1 day before	275(13.5%)
	1 week before	597(29.48%)
	1month before	871(43.01%)
	3months before	282(13.9%)

**DISCUSSION**

Diabetes mellitus is increasing at the alarming rate throughout the world including Pakistan. Right now, 7.1 million Pakistani are suffering from DM and it's expected that by the 2025, 14.1 million Pakistani people will fall prey to it, Pakistan ranks 7th in diabetes population. We observed that the overall KAP score was unsatisfactory. The variation in the KAP score in various studies can be because of difference in the literacy rate of participants, different training programs organized for patients and presence of literature containing information about DM. In Pakistan, there is unavailability of such sort of facilities and that is also one of the contributing factor for low KAP score.

It is a fact that diabetes maintenance needs the patient to get involved for enhanced outcomes. Enhancing the patients information can be achieved through various methods like group education, patient counseling and patient intervention by the pharmacist. These approaches can be significant in yielding awareness to diabetic people. Unfortunately in our hospitals, pharmacist are engaged in the other stuff but the prime responsibility to intervene the diabetic patients is still awaited. The is dire need that pharmacist assigned to carry out the intervention for diabetic patients in their local languages.

Techniques to improve the life style of diabetic patients include provision of knowledgeable leaflets. Mass awareness programs and patients should be informed that how significant it is to have daily self checkup of blood glucose and B.P. In our

study, majority of the participants were unaware from the routine checkup of B.P. As it is known fact that if patients get deeply involved, then the outcome can be extraordinary and patients life quality can be improved remarkably. That's why improving patients KAP ought to be kept on top priority.

In country like Pakistan, its' responsibility on all healthcare professionals especially pharmacist to equip the patients with such knowledge, which can prove very helpful to control the complication of diabetes. There is dire need that the number of pharmacists may be increased in the government hospitals. In addition to this, the pharmacists who are in the hospitals are given different tasks while this prime role was seen missing. In contrast, in the countries like USA, Australia, Ireland and other developed as well as developing countries the pharmacists are supposed to be in key role in the healthcare team of diabetes management. So, if these measures are implemented the KAP score will certainly be enhanced and the quality of life for the patients suffering from diabetes will be much better.

**CONCLUSION**

Overall patients KAP score was low due to low literacy rate and lack of different training programs organized for patients and presence of literature containing the detailed information about DM. Patients who very deeply involve to get information about their disease were seen more skilful to manage their disease.

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**Conflict of Interest:** None declared  
 Rec. Date: Mar 14, 2017 Revision Rec. Date: July 7, 2017 Accept Date: Sep 27, 2017

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