



## Knowledge and Myths about Diabetes mellitus and its treatment

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### ABSTRACT

The present study aimed to explore knowledge and various myths related to Diabetes mellitus and antidiabetic drugs in our population. A descriptive cross sectional survey was conducted at the weekly diabetic clinic of Liaquat University of Medical and Health Sciences Jamshoro over one year period. A sample of 560 subjects was studied including both diabetics and non-diabetics. A pre-structured proforma was used to gather information. The questions regarding myths and knowledge about diabetes mellitus and antidiabetic drugs were asked. The data was analyzed using the Statistix (USA version 8.1.) computer software statistical package. The continuous and categorical variables were analyzed using student's t - test and Chi-square respectively. Regarding the antidiabetic drug therapy, a highly aberrant behavior of diabetics was noted. Only 42.2% of the diabetics were taking antidiabetic drugs regularly, rest were using drugs as on-off or on-demand therapy. The myths were noted as; Diabetics can take honey as it alleviates the blood sugar, herbal agents completely cure diabetes mellitus and diabetes is a disease of urine. The most dangerous myths were noted for the insulin therapy. Many diabetics responded that the insulin is a poison, which once started cannot be stopped. The insulin is used for those who are near to die and is not good for health. The myths and lack of proper knowledge of Diabetes mellitus are prevalent among population which could be associated with poor health seeking behavior; and increased morbidity and mortality.

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### Introduction

The number of people with type 2 Diabetes mellitus (DM) is increasing due to population growth, aging, urbanization, and increasing prevalence of obesity and physical inactivity.<sup>1</sup> This epidemic of DM is particularly relevant to Pakistan.<sup>2</sup> The WHO has estimated that in 2030, half of 333 million people living with DM will be from Asia. According to International Diabetes Federation (IDF), the number of diabetics older than twenty is going to rise from 285 million in 2010 to 439 million in 2030.<sup>3</sup> The Pakistan occupies sixth position regarding diabetes burden in whole world.<sup>1</sup> According to an estimate of Shera, et al<sup>4</sup> there are 15% Pakistani's with diagnosed DM and millions more which remain undiagnosed of having DM.<sup>4,5</sup> Pakistan is passing through stage of diabetes epidemic. The problem has now reached pandemic proportions. It is a large public health problem growing astronomically every year. Apart from treatment of diabetes we need to pay attention to the prevention and health education of people.<sup>6</sup>

Myths are defined as stories shared by a group of people which are a part of their cultural identity. They have a strong influence in the life of individuals and their way of living including seeking treatment during illness.<sup>7</sup> The false beliefs become part of cultural identity and used to justify a social behavior. They have a strong influence in the life of Individuals and their way of living including seeking treatment. Myths have usually cultural and social backgrounds and usually they stay in a certain society. Lack of education, poverty, lack to health care

facilities added with multiple ethnic, linguistic and cultural groups add up to the emergence of many myths. Educational level is protective against myths.<sup>8</sup> Therefore, understanding the knowledge and myths of population about diabetes mellitus and its treatment is important in providing better care and health education to both patients and healthy individuals.

### Subjects and Methods

We conducted a descriptive cross sectional survey at weekly diabetic clinic of tertiary care Hospital of Liaquat University of Medical and Health Sciences, Jamshoro/ Hyderabad over one year period (September 2012 to August 2013). The study was conducted to assess the myths and knowledge related to diabetes mellitus and antidiabetic drug therapy. A sample of 560 study subjects, including both the type 2 diabetics and attendants were selected irrespective of gender. The non-diabetic population consisted of the relatives accompanying the patients. Each study subject was explained the aims and protocol of the study. A verbal consent was sought as a general ethical code from willing participants. The participants were further informed that they can withdraw at any time if feeling anxious, worrisome and not feeling good.

A pre-structured proforma was used to gather information. The questions regarding biodata, sociodemographic profile, myths and knowledge about diabetes mellitus and antidiabetic drugs therapy. The proforma was structured in sindhi/urdu language and tested on separate group of participants and validated with the help of language and medical experts.

The interview was scheduled by the first author in diabetic clinic. Each participant was given sufficient time to listen the questions, understand and think properly and answers in freely. The data was analyzed using the *Statistix (USA version 8.1.)* computer software statistical package.

	Diabetic (n=310)	Non-Diabetic (n=250)
Age (years)	49±17	47±19
Male	209	147
Female	101	103
Occupation		
• House wife	101	103
• Private	60	37
• Retired	47	13
• Government servant	90	67
• Self-employed	12	30
Education		
• Uneducated	109	49
• Primary	43	15
• Secondary	37	55
• Higher secondary	52	67
• Graduate	69	64

### Results

The demographic characteristics of the study population are shown in table. I. The male was the dominant population in both the diabetics and non-diabetics. Most of the individual's belonged to poor social class and were uneducated, however graduates were also interviewed. The antidiabetic drug intake habits showed a highly aberrant behavior.

		Diabetic (n=310)	Non-Diabetic (n=250)
1. Diabetes is disease of urine	Yes	291	119
	No	19	131
2. Sugar intake causes Diabetes	Yes	290	211
	No	20	39
3. Diabetes is contagious	Yes	211	119
	No	99	131
4. Diabetes is an inherited disease	Yes	193	191
	No	117	59
5. Diabetics must not take sugar and sweet	Yes	278	156
	No	32	94
6. Diabetics cannot live normal life	Yes	301	120
	No	09	130
7. Diabetics can take honey	Yes	156	209
	No	154	41
8. Diabetes is completely curable	Yes	109	49
	No	201	201
9. Honey alleviates blood sugar	Yes	302	119
	No	08	131
10. Herbal agents are better to treat diabetes mellitus	Yes	198	199
	No	112	51
11. Herbal agents completely cure diabetes mellitus	Yes	212	110
	No	98	140
12. Allopathic drugs are not good	Yes	267	207
	No	43	43

Only 42.2% of the diabetics were taking antidiabetic drugs regularly, rest were using them as on-off or on-demand drug therapy. The details of myths and knowledge about diabetes mellitus and antidiabetic drug therapy are shown in table II, with astonishing results. The myths explored were that the; Diabetics can take honey as it alleviates the blood sugar, herbal agents completely cure diabetes mellitus, and diabetes is a disease of urine. The most dangerous myths were noted for the insulin therapy. Many diabetics responded that insulin is a poison,

which once started cannot be stopped. The insulin is used for those who are near to die and is not good for health.

### Discussion

Myths can be prevalent in a population due to a variety of reasons like poor education, cultural beliefs and social misconceptions.<sup>9</sup> They are usually passed on from one generation to the next. It is difficult to break this chain as it is deep seated in the society. We need to change the mindset and the behavior of the population to eliminate the myths and educate the people about DM. The knowledge and myth about a most common disease are better to explored to overcome the problem; as it is a social hindrance to the proper management of DM hence it is essential to provide good care as well as health education to the people.

The present study focused on the common myths prevalent in our diabetic community. The most common myths are shown in the table II. Most common myths noted were that the; Diabetics can take honey as it alleviates the blood sugar, diabetes is contagious and diabetes is a disease of urine. However more severe myths were noted for the insulin therapy. Many diabetics responded that the insulin is a poison, which once started cannot be stopped. The insulin is used for those who are near to die and is not good for health. Some others are of opinion that herbal medicines are very effective in treatment of diabetes. These sections of people often present late to Doctors with complications as they first seek herbal treatment.

Rai M et al<sup>9</sup> has reported similar myths about diabetes mellitus from India. Similarly, Nisar *et al*<sup>10</sup> reported high prevalence of spiritual treatment myths in Karachi. Another study conducted in Pakistan, reported similar findings that patients abandoned traditional medicine when their serum glucose reduced.<sup>11</sup>

In a most recent study from India by Jijomon et al<sup>12</sup>, surprising myths and misconceptions were reported like, DM is a God's curse, DM is caused by eating more sugar, and DM is a communicable disease. All these are similar to noted in our present study. Another myth that surrounds diabetes is that it is communicable disease. This was also found in previous study.<sup>10</sup> Also people are not aware about the normal blood sugar levels, role of lifestyle changes in control and treatment of diabetes and that if not treated diabetes can lead to complications.

The prevalence of myths was found to be higher in females. This is consistent to what has been reported by Rai M et al<sup>9</sup>. The higher incidence of myths in females can be attributed to the fact that females are usually less educated than males.

Educational status of people seemed to reduce their belief in the myths and they were better informed about the disease. This is similar to what was reported by Rai et al<sup>9</sup>, and Nisar *et al*.<sup>10</sup> The present study clearly reflects the myths and factual lack of knowledge about DM. It is concluded that the traditional myths are major obstacles in the proper drug therapy of DM which is rising this moment in the country.

### Conclusion

The myths and lack of proper knowledge of Diabetes mellitus is prevalent among population which could be associated with poor disease control. Rigorous public campaigns about Diabetes mellitus, antidiabetic drug and insulin therapy must urgently be warranted by public health department to overcome the aberrant social behavior.

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