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Research Article

**AN ANAYTICAL STUDY OF THE PERCEPTION AND
KNOWLEDGE OF DIABETES MELLITUS IN THE URBAN
POPULATION OF MULTAN**¹Dr. Aamir Ali, ²Dr. Rana Muhammad Sohail Akbar, ²Dr. Afzaal Ashraf¹Medical Officer, BHU 12 G.D Okara²Punjab Medical College**Abstract:**

Objective: The aim of this study is to evaluate the knowledge and perceptions of diabetes in Multan sampling.

Study Design: A descriptive and cross-sectional Study

Place and Duration: The study was performed in the urban population of Multan Division for the Period of one year from February 2016 to February 2017.

Materials and Methods: This descriptive and cross-sectional study was conducted in Multan at seven different locations of urban area. It is specially designed in Urdu for the convenience of selected subjects is a sample form for interpreting, interviewing a sample of 305 residents from 15 to 60 years or more.

Results: diabetes information was not optimal. The mean percent of correct answers to the three classic symptoms and complications was 47.1% and 30.8%, respectively. 46.2%, 42.3%, 39.3%, 33.4%, and 31.8% of the subjects, respectively, were diagnosed with diabetes, obesity, family history overuse, physical activity and stress deficiency. It has been noticed that the existence of family history and education level is related to more information.

Conclusion: There is a lack of information about the main risk factors and some complications of diabetes mellitus. Level of education is an important determinant of diabetes knowledge and prevention. Prevalence of diabetes.

Keywords: Knowledge, Multan, Perceptions, Diabetes.

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INTRODUCTION:

Diabetes mellitus is a major threat to public health worldwide. 171 million people worldwide are diabetic in 2000, and this figure is expected to increase by 366 million in 2030 by the increasing prevalence of diabetes such as population aging, which is associated with many factors such as obesity, dieting and obesity that are rich in obesity. Diabetes is common among older people, while in developing countries diabetes affects people between the ages of 34 and 65. In some countries, diabetes is very common in young people. In addition, about 200 children suffer from type 1 diabetes, one of the most common chronic diseases affecting children, on a daily basis. The lack of adequate screening for knowledge of diabetes and high-risk groups of facilities, lack of awareness and knowledge of risk factors and manifestations can give a hint of early diagnosis failure. For this reason, complications of diabetes can make the condition worse. Prevention or delay of initiation of diabetes is a feasible option. Increased physical activity, appropriate diet and weight reduction, and appropriate pharmacological interventions can significantly reduce the incidence and severity of diabetic complications, even among high-risk groups. For this reason, some of the possible ways to overcome this emerging problem are the increasing awareness of changeable risk factors, health education and emerging strategies to define and manage high risk groups of people. Diabetes The prevalence of diabetes has increased in Pakistan. WHO ranked 7th on the list of Pakistani diabetes prevalence. More than 6.9 million people in Pakistan are affected by diabetes. The International Diabetes Federation estimated that this figure would rise to 11.5 billion by 2025 unless measures are taken to control the disease. immobile lifestyles, physical activity, malnutrition and obesity in welfare societies are considered the main culprits for the emergence of this disease. Many troubled problems in the past are now considered to be addressed through medical interventions, but the need for adequate knowledge and perceptions of a disease should not be neglected. The purpose of this study is to evaluate the knowledge about diabetes and the perceptions of Multan's general population.

MATERIALS AND METHODS:

This descriptive, cross-sectional study was carried out in seven different places in Multan, namely the urban area. Among the first-degree relatives, people were reported to have a family history of diabetes. Positive family stories were reported. The sample included 350 eligible individuals aged 15 years and over. People visited their homes and interviewed. If there is no suitable person to complete the interview,

arrangements have been made for follow-up calls. 5 initiatives were made from February 2016 to February 2017 with a total of 305 eligible members and the response rate was 87.1% with each member of the eligible working period interview. A special questionnaire was designed for data collection. The survey included 25 questions, along with demographics. The survey is divided into five divisions. In the first two chapters there were questions about demographic features and medical storytelling. The third part is designed for diabetic participants and encompasses diabetes history and glycemic control. In the fourth chapter, the questions were tested to know the symptoms, risk factors and complications of diabetes. In the last section, questions were asked about prevalence, prevention and awareness. In addition to closed questions, open questions were also included in order to collect additional information which otherwise would not have been possible. For example, the closed question is, "What are your blood sugar levels from your visits to your doctor?" He followed this open question, "If it is long, what are the reasons?" The articles and components were sufficient for this study. In addition, the survey has been translated into Urdu for the convenience of topics. To include non-literate people, they read surveys rather than self-imposed. The data were analyzed for frequencies and percentages using SPSS-16.

RESULTS:

A total of 305 people were investigated. The demographic and clinical characteristics of the cases together with gender differences are presented in Table-1. 164 cases (53.8%) were male and 141 (46.2%) were female. In addition, 77.4% of the individuals aged 15-45, 44.6% worked in middle and middle level, 55.4% received graduation and postgraduate training, 58.4% were married and 39% were not married. Monthly income of households is 25,000 PKR or lower in 66.9% of working group. 12.1% of self reported diabetic patients, 17.4% of hypertension patients, 4% of heart patients, 3.3% of hyperlipidemia patients and 0.7% of patients had apoplexy attacks. Smoking was 5.6%. The reported cases were family history of diabetes in 63%.

Table-1: Demographic characteristics of selected sample and gender differences [n(%)]

Demographic characteristics	Males n=164	Females n=141	Total n=305
Age group			
15-30 years	71 (43.3)	75 (53.2)	146 (47.9)
31-45 years	47 (28.7)	42 (29.8)	89 (29.2)
46-60 years	41 (25)	20 (14.2)	61 (20.0)
>60 years	5 (3.0)	4 (2.8)	9 (2.9)
Educational status			
Illiterate	8 (4.9)	22 (15.6)	30 (9.8)
Less than primary	4 (2.4)	1 (0.7)	5 (1.6)
Primary	5 (3.0)	11 (7.8)	16 (5.2)
Matric	29 (17.7)	12 (8.5)	41 (13.5)
Intermediate	24 (14.7)	20 (14.2)	44 (14.5)
Graduation or more	94 (57.3)	75 (53.2)	169 (55.4)
Marital status			
Married	101 (61.6)	77 (54.6)	178 (58.4)
Unmarried	63 (38.4)	56 (39.8)	119 (39.0)
Divorced	- (-)	4 (2.8)	4 (2.8)
Widows	- (-)	4 (2.8)	4 (2.8)
Monthly household income (PKR)*			
<10000	22 (13.4)	20 (14.2)	42 (13.8)
10000-25000	87 (53.0)	75 (53.2)	162 (53.1)
25001-40000	33 (20.1)	23 (16.3)	56 (18.4)
40001-55000	12 (7.4)	10 (7.1)	22 (7.2)
>55000	10 (6.1)	13 (9.2)	23 (7.5)
Diabetic status- self reported			
Diabetic	15 (9.1)	22 (15.6)	37 (12.1)
Non-diabetic	141 (86.0)	111 (78.7)	252 (82.6)
Not sure	8 (4.9)	8 (5.7)	16 (5.3)
Hypertensive status-self reported			
Hypertensive	28 (17.1)	25 (17.7)	53 (17.4)
Non-hypertensive	136 (82.9)	116 (82.3)	252 (82.6)
Heart problems- self reported			
Heart diseases	6 (3.7)	6 (4.3)	12 (4.0)
No heart diseases	158 (96.3)	135 (95.7)	293 (96.0)
Stroke- self reported			
Attack of stroke	2 (1.2)	0 (0)	2 (0.7)
No attack	162 (98.8)	141 (100)	303 (99.3)
Hypercholesterolemia-Self reported			
Present	3 (1.8)	7 (5.0)	10 (3.3)
Not present	161 (98.2)	134 (95.0)	295 (96.7)
Smoking- self reported			
Smokers	17 (10.4)	0 (0)	17 (5.6)
Non-smokers	147 (89.6)	141 (100)	288 (94.4)

The information about the symptoms of diabetes was that 186 (61%) patients had polyuria, 130% had polydipsia (42.6%) and 115 (37.7%) weight loss (Table 2).

Table-2: Knowledge of symptoms of diabetes and gender differences

Symptoms	Males n=164	Females n=141	Total n=305
Polyuria	84 (51.2)	102 (72.0)	186 (61.0)
Polydipsia	62 (37.8)	68 (48.2)	130 (42.6)
Loss of weight	57 (34.8)	58 (41.1)	115 (37.7)

Mean percentage of the total=47.1%

Excessive sugar consumption as the main risk factor was determined by 141 (46.2%) people. Stresses such as obesity, family history of diabetes, lack of physical activity and other risk factors for diabetes mellitus were found to be 129 (42.3%), 120 (39.3%), 102 (33.4%) and 97 (31.8%). respectively). Excessive consumption of sugar as a risk factor is more common in women than men. The recognition of stress as a risk factor is rare among the cases (Table-3).

Table-3: Knowledge about risk factors in relation to gender differences

Risk factors	Males n=164	Females n=141	Total n=305
Excessive intake of sugar	70 (42.7)	71 (50.4)	141 (46.2)
Obesity	64 (39.0)	65 (46.1)	129 (42.3)
Family history	50 (30.5)	70 (49.6)	120 (39.3)
Lack of physical activities	63 (38.4)	39 (27.7)	102 (33.4)
Stress	47 (28.7)	50 (35.5)	97 (31.8)

Information about complications leading to severe outcomes was not optimal. Renal diseases were defined as a major complication of diabetes mellitus in 168 (55.1%) patients. Eye diseases and visual problems were detected in 156 cases (51.1%) followed by heart disease 86 (28.2%), sexual appetite reduction 82 (26.9%), brain and nerve diseases 61 (20%) and delay. Other important complications were wound and diabetic foot healing (3.6%) (Table-4).

Table-4: Knowledge regarding complications of diabetes in relation to gender differences

Complications	Males n=164	Females n=141	Total n=305
Kidney diseases	81 (49.4)	87 (61.7)	168 (55.1)
Eye diseases	80 (48.8)	76 (53.9)	156 (51.1)
Heart diseases	39 (23.8)	47 (33.3)	86 (28.2)
Decrease in sexual appetite	49 (29.9)	33 (23.4)	82 (26.9)
Effect on brain and nerves	30 (18.3)	31 (22.0)	61 (20.0)
Delayed wound healing & diabetic foot	6 (3.7)	5 (3.5)	11 (3.6)

Mean percentage of the total=30.8%

These were perceived subjects who were perceived to be fatal, 212 (69.5%) were not lethal, 48 (15.7%) and 45 (14.8%) subjects, perceived as diabetic subjects were unsure whether this was fatal or fatal. terminal illness. Diet Care and weight loss are important preventive measures for diabetes prevention (Table-5). As a precautionary measure 166 (57.7%) were achieved and 157 (51.5%) more physical activity perceived, 114).

Table-5: Perceptions of fatality of diabetes and the ways to prevent diabetes

Perceptions of fatality and prevention	Males n=164	Females n=141	Total n=305
Fatal	110 (67.1)	102 (72.3)	212 (69.5)
Non-fatal	32 (19.5)	16 (11.3)	48 (15.7)
Not sure	22 (13.4)	23 (16.3)	45 (14.8)
Diet care	95 (57.9)	81 (57.4)	176 (57.7)
High physical activity	88 (53.7)	69 (48.9)	157 (51.5)
Avoid obesity	54 (32.9)	60 (42.6)	114 (37.4)

236 (77.4%) were perceived by the subject as a common source of information. 134 (44%) people have been referred to as an important source of social work; Approximately 2.8% of subjects mention this information, and about diabetes should be included at the very important school level curriculum. Perception pertaining to improving awareness through the media was higher among men than in women (Table-6).

Table-6: Perceptions regarding improvement of awareness in relation to gender differences

Awareness improvement	Males n=164	Females n=141	Total n=305
Media	132 (80.5)	104 (73.8)	236 (77.4)
Social activities	71 (43.3)	63 (44.7)	134 (44.0)
As a part of curricula	5 (3.0)	4 (2.8)	9 (2.9)

DISCUSSION

Pakistan, despite modern pharmacological interventions, has not succeeded in reducing the incidence of infectious diseases. The reason for this is the large increase in population and limited facilities to meet the demands of the growing population. On the other hand, noncommunicable diseases such as diabetes and hypertension are more prevalent in the welfare societies of Pakistan. The increased consumption of soft drinks, fatty foods and sedentary lifestyles are the main causes of diabetes. As a result of our work, the male-female relationship did not coincide with that in Oman. Compared to Oman work Women who are being interviewed during our work may have caused a lower percentage of women due to social restrictions in our society. The prevalence of diabetes in urban areas in Pakistan is 6.0% in males and according to our research, the reported self-reported diabetes among men is 9.1% and 15.6% in females, 3.5% in females; In rural areas, the prevalence rate is 6.9% for males and 2.5% for females. The inconsistency of the results may depend on the time frame of the study in 2006, or the selected sample may have many diabetic patients. Even diabetes exists at a certain level in low socioeconomic groups. The situation has worsened because people with low socioeconomic status can not pay for appropriate treatment due to financial problems. Stress should also be taken into consideration as it is a risk factor for many other important diseases besides diabetes. The knowledge about diabetes is limited by the work of the subjects, even the third term of "diabetes", which overlaps with the results of the study conducted in Chennai, India. It is known that the promotion of health based on knowledge and perceptions of diseases in a society is based on any strategy designed to control or prevent these diseases. It is widely accepted that excessive dietary sugar intake is an important risk factor for the incidence of diabetes mellitus. Even sugar-sweetened beverages are associated with a greater risk of developing diabetes in women, probably by providing a greater quantity and type of high-calorie, high-calorie, and fast-absorbing sugar. The outcomes of perceptions of diabetes prevention measures are consistent with those outlined in the Oman study, but the percentages are different. In addition, according to findings of our study, the information on diabetes risk factors is greater than women, which is not consistent with the findings of

the above-mentioned study in Oman. . People who have a positive family story can develop a sense of sensitivity that can increase their awareness. This finding is consistent with the study conducted in 2004 in the UK. Risk perception is an important concept in a number of theoretical models dealing with health-related protective behaviors. The perceived risk is thought to be the main cause of change in the Health Belief Model, which is thought to be the higher the perceived risk, the more likely it is that the individual will change his behavior to survive this threat. Current findings show that despite limited diabetes knowledge, we can still motivate the public through health education. This can produce fruitful results.

CONCLUSION:

There is an important lack of knowledge and perception about diabetes in the Multan population. The level of education is an important predictor of optimal knowledge and perceptions of the risk factor, symptoms, complications and prevention of diabetes. Raising awareness among the masses through health education will help control diabetes by encouraging the initiation of effective control of diabetes, early diagnosis and prevention of diabetes-related complications and barriers.

REFERENCES:

1. Ghosh, Jyoti Ratan, Piya Ghosh Dastidar, Biswarup Dey, Piyali Das, and Arup Ratan Bandyopadhyay. "Palmar dermatoglyphic traits in type 2 diabetes mellitus patients of Bengalee Hindu caste population of West Bengal, India: a cross-sectional study." *Journal of Biomedical Sciences* 3, no. 2 (2018): 18-23.
2. Ruiz-Alejos, A., Carrillo-Larco, R.M., Miranda, J.J., Anderson, C.A., Gilman, R.H., Smeeth, L. and Bernabé-Ortiz, A., 2018. Addressing the impact of urban exposure on the incidence of type 2 diabetes mellitus: The PERU MIGRANT Study. *Scientific reports*, 8(1), p.5512.
3. Lingam, Sneha, P. Rani, Sethu Sheeladevi, Vimala Kotapati, and Taraprasad Das. "Knowledge, attitude and practices on diabetes, hypertension and diabetic retinopathy and the factors that motivate screening for diabetes and diabetic retinopathy in a pyramidal model of eye health care." *Rural and remote health* 18, no. 1 (2018): 4304-4304.
4. Mageri, A., Kunzova, S., Medina-Inojosa, J.R., Agodi, A., Barchitta, M., Homolka, M., Kiacova, N., Bauerova, H., Sochor, O., Lopez-Jimenez, F. and Vinciguerra, M., 2018. Association between eating time interval and frequency with ideal cardiovascular health: Results from a random

- sample Czech urban population. *Nutrition, Metabolism and Cardiovascular Diseases*.
5. Nakhla, M., Rahme, E., Simard, M., Larocque, I., Legault, L. and Li, P., 2018. Risk of ketoacidosis in children at the time of diabetes mellitus diagnosis by primary caregiver status: a population-based retrospective cohort study. *CMAJ*, 190(14), pp.E416-E421.
 6. Gao, C., Sun, X., Lu, L., Liu, F. and Yuan, J., 2018. Prevalence of gestational diabetes mellitus in mainland China: A systematic review and meta-analysis. *Journal of diabetes investigation*.
 7. Chavan, M.S., 2018. EVALUATION OF RISK FACTORS OF TYPE 2 DIABETES MELLITUS BURDEN IN PUNE: A CROSS-SECTIONAL STUDY. *GLOBAL JOURNAL FOR RESEARCH ANALYSIS*, 6(12).
 8. Karaoui, L.R., Deeb, M.E., Nasser, L. and Hallit, S., 2018. Knowledge and practice of patients with diabetes mellitus in Lebanon: a cross-sectional study. *BMC public health*, 18(1), p.525.
 9. Abdullah, Noraidatulakma, Boekhtiar Borhanuddin, Afzan Effiza Abdul Patah, Mohd Shaharom Abdullah, Andri Dauni, Mohd Arman Kamaruddin, Shamsul Azhar Shah, and Rahman Jamal. "Utilization of Complementary and Alternative Medicine in Multiethnic Population: The Malaysian Cohort Study." *Journal of evidence-based integrative medicine* 23 (2018): 2515690X18765945.
 10. Mbutiwi, Fiston Ikwa Ndol, François Bompeka Lepira, Taty Latelabwe Mbutiwi, Donat Kenge Kumakuma, Gloria Kikumbi Kumbukama, and Marie-Pierre Sylvestre. "Prevalence and Sex-Specific Distribution of Cardiovascular Risk Factors in University Students in an Urban-Rural Environment of the Democratic Republic of the Congo." *Journal of community health* (2018): 1-7.
 11. Ahangar, A.A., Saadat, P., Heidari, B., Taheri, S.T. and Alijanpour, S., 2018. Sex difference in types and distribution of risk factors in ischemic and hemorrhagic stroke. *International Journal of Stroke*, 13(1), pp.83-86.
 12. Walker IF, Garbe F, Wright J, Newell I, Athiraman N, Khan N, Elsey H. The Economic Costs of Cardiovascular Disease, Diabetes Mellitus, and Associated Complications in South Asia: A Systematic Review. *Value in Health Regional Issues*. 2018 May 1;15:12-26.