

**Research Article**

## **Qualitative Approach to Type 1 and Type 2 of Diabetes in Pakistan**

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### **ABSTRACT**

Diabetes mellitus is a group of metabolic disorders that hyperglycemia is a common symptom. Diabetes mellitus is divided into 2 types of type 1 diabetes and type 2 diabetes. Type 2 diabetes is caused by several causes, including insulin resistance, insufficient insulin secretion, and extra glucose production by the liver. Among the risk factors for type 2 diabetes are diabetes: familial history of diabetes, overweight, lack of mobility, history of gestational diabetes, high blood pressure, low HDL levels, polycystic ovarian syndrome, history of cardio-vascular disease. Increasing the level of general information about type 2 diabetes will have a direct relationship with improving community health and improving patients and reducing the complications of the disease. In Pakistan, Public awareness about diabetes and its complications are not ideal. In addition to increasing the prevalence of illness in the coming years, late complications of the disease were such as cardiovascular events, stroke, ocular complications, renal complications, amputation of limbs and spinal cord injuries. The aim of this study was to investigate the awareness of people in relation to type 1 and 2 diabetes, in order to develop educational programs based on their findings, if necessary, and to increase the level of knowledge of this group about the occurrence or progression of diabetes mellitus prevention.

**Keywords:** Pakistan, qualitative study, diabetes type 1, diabetes type 2, remedies.

### **INTRODUCTION**

Diabetes Mellitus (DM) is presently the main source of dismalth and mortality all through the world. the basic cause for the high rate of hospitalizations is Diabetes, visual deficiency, renal disappointment, and non-horrible amputation. The economical effects of Diabetes Mellitus are high and it is a noteworthy supporter of the heightening value of the healthcare throughout the world. Diabetes is additionally the most well-known non-transmittable diseases at the global level. the prevailing grade of diabetes mellitus fluctuate impressively among various populaces and ethnic communities' studies. a few developing countries have reported the high pervasiveness rates. according to the estimations of the World Health Organization (W.H.O.) in the coming years the quantity of the peoples who the

patients of diabetes will be increase and also the underdeveloped countries will endure the undeniable weight of diabetes. The region of South Asia specifically to be viewed as the main region with the most elevated increment in the anticipated quantity[1].

it has been proved from the several studies that the migrants of South Asia and their posterity's have higher prevailing rates of Diabetes Mellitus as compared to the indigenous population. up till now we have a limited data of the of the population of the indigenous Pakistani peoples about the prevailing rate of diabetes. National Diabetes Survey in Pakistan, with predominance rates of glucose bigotry and related elements in Khyber Pakhtunkhwa [2].

While the family group inspecting with deliberate OGTT may have a slight predisposition in populace screening towards ladies and those with potentially a more noteworthy worry of DM, the outcomes of the studies are tantamount to pervasiveness rates of Diabetes Mellitus in the other population of the South Asia. in the Khyber Pakhtunkhwa, the percentage of the older women with the type 2 diabetes mellitus is 11.6% and the adult men percentage are 9.2%, and furthermore the females 9.3% and male populace are 9.7% having LOT. The recent study demonstrates that in spite of geographical contrasts and social assorted variety among the cultural communities in Pakistan, all take a comparatively high peril of diabetes mellitus and IGT. The highest prevailing rate likewise affirm the requirement for concern with respect to the effectively extensive and developing issue of DM in Pakistan[3].

In the condition of diabetes, the body does not suitably process nutriment for use as essentialness. By far most of the nutriment we eat is changed into glucose, or sugar, for our bodies to use for imperativeness. The pancreas organ which puts near the stomach, produce hormones which is called insulin and that hormones help glucose to enable glucose to get into the cells of our bodies. your body will produce enough insulin when you are the patient of diabetes. if you are the patient of diabetes then your body will not produce the required insulin and also as well as your body will not be able to use that insulin. and due to this, the sugar level in the body will be build up. This is the reason many peoples allude diabetes as 'sugar'. Diabetes is the main reason for severe complexities of the health including coronary illness, visual deficiency, failure of the kidney, and removal of the body organ. the major reason for the maximum deaths in the united states is Diabetes[4].

Type 1 diabetes, which can be called the youngsters diabetes, most often grows in the children's; and this of diabetes grows in adults also. in this of diabetes your body will not be able to produce the sufficient insulin due to the

immunity system of the body which protect you from contamination by disposing of microbes, infections, and other hurtful substances, has assaulted and decimated those cells which produce insulin[5].

#### **Cure for the type 1 diabetes consist**

- i. Injections for insulin should take properly.
- ii. Taking medicines by mouth.
- iii. Always eat good foods.
- iv. Participates in the games and do exercise regularly.
- v. Control the level of blood pressure. It is the pressure of the blood in your veins.
- vi. Cholesterol level should also be control.

#### **Type 2**

the type 2 diabetes, which can be called the grown up diabetes because it can affect the people of any age either adults or, even youngsters. In any case, mostly the type 2 diabetes affect the middle age peoples and also the old ages peoples. Individuals who have the obesity problems and inert are probably more inclined to have the type 2 diabetes[6].

Normally the type2 diabetes start with the resistance of the insulin, it is a condition in which the fat muscle and cells of lever does not use insulin to transfer the glucose for the energy into the cells of the body. Subsequently, the requirement of the body of the insulin is more because it enable glucose to enter into the cells of the body. initially the pancreas stays aware of the additional requirement for producing the more insulin. when the sugar level in the blood will increase then the pancreas will not be able to produce adequate insulin. if your pancreas does not able to produce the adequate insulin then should get the treatment of the type 2 diabetes[5].

#### **Cure for the type 2 diabetes consist**

- a) Take proper medicines for diabetes
- b) Always eat healthy foods.
- c) Participate in physical activities.
- d) Blood pressure should be control.
- e) Cholesterol level should also to be control.

### **Preventions**

it has been proved from the Various experiments that if the people participate in the physical activities on the regular basis then it will cut down the risk of diabetes. the corpulence is also connected with the type 2 diabetes. In light of the developing wellbeing issues of diabetes mellitus, three options are available for the peoples who have diabetes: forestall diabetes; medicate diabetes, furthermore, nurture people with diabetes to neutralize demolish complexities. Each of the three methods is as of now being looked for after by the US Department of Health and Human Services[7].

### **Level of awareness regarding diabetes in Pakistan**

National level, despite the fact that the National Diabetes Advisory Board expressed in its 1993 Annual Report that - being taken care of by diabetes, an ounce of instruction spares a pound of treatment. Further, the American Diabetes Association, define clearly, the basic part of diabetes instruction in quality diabetes mind. Similarly, DAWN2 study conducted in over 17 countries in 4 continents, by extrapolating global DAWN2 data to Pakistan's diabetes care environment, while focusing on national data from socio culturally similar countries like India, inspire us to initiate reforms in the way we manage diabetes. Upgraded inclusion of the individual with diabetes and his or her family, following the standards of individual focused and family-focused care, is a basic perspective[8].

The possible risks of multiple drug regimens (poly pharmacy) in a diabetic patient Diabetes mellitus is a metabolic disorder and the patient is on multiple drugs. Along with this strong belief on myths about diet, and medications specially insulin and complications, the need for education is imperative. The role of consultant pharmacist is thus of special importance in many aspects. A pharmaceutical specialist who is paid to give the good opinion on multidisciplinary health issues at individual level or within institutions, or on the provision of pharmacy services to institutions. A

pharmacist as a part of health care system, has an advantage to provide effective counseling and deliver patient education in clinics, hospitals and community, better understanding of the disease, life style modifications and significance of good glycemic control. Consultant pharmacist can also be involved in patient's adherence to their treatment plan, especially insulin by educating the management of hypoglycemia and dose titration according to blood glucose levels. Additionally, consultant pharmacist may also be involved in educating the patient's family members in special cases as of pediatric and geriatric patients as well as conducting nursing education program on diabetes care can also be minimized by a pharmacist[9].

in the present day, one of the biggest challenge in the health sector is diabetes throughout the world. Diabetes is a standout amongst the most pervasive issue, the predominance of which was assessed, in 2013 to be 382 million peoples are the patients of diabetes and that is anticipated to ascend to 592 million by 2035. The vast majority with diabetes live in developing countries (like Pakistan). According to IDF, currently 6.6 million Pakistanis live with diabetes and in 2025 approximately the number of diabetic people is estimated to projected 14.5 million; Pakistan has the tenth largest population of diabetes, and will take the fourth position in 2025. The management of chronic disorders like diabetes not only requires rational therapeutic approaches, but also proper education and counseling by healthcare professionals, because if the patient has enough knowledge about the diabetes and take care of himself and furthermore if the individuals has more knowledge about their diseases then they can better take care of their diseases with managed skill. The significance of diabetic patient education has been known since the eighteenth century; Dr. E.P. Joslin stated that " who knows that the diabetic will mostly live the longest". So recently it has been evaluated that diabetic patient counseling about the disease state, complications and management, adherence to therapy and

medications, clarifying myths and other aspects can reduce and prevent the long term complications and decreases financial burdens and morbidity rates. But unfortunately in Pakistan many research works published, show that the people who have the diabetic problems have very low level of knowledge about the diabetes, its associated problems and controlling. A study conducted in Quetta concluded that 77.11% of the study population had no knowledge of diabetes and its complications [10].

Another study in Karachi has exposed that maximum peoples who have the diabetes problem they did not acquired any type of awareness education about the diabetes. As like a study in 2009 has reveal that a survey was conducted of the 300 hundred peoples in the rural areas of Islamabad and the result of that survey was that only 43% (129) have a little bit knowledge about the diabetes mellitus, only 14% (42) people know about the risk factor and the 22% (65) have knowledge about the complexities of the diseases which are connected with the diseases, and 77% (232) peoples are those who never went to any hospital or clinic for regular checkup [11]. Another study published by Khalid Mahmood et al in 2011 showed that most of the diabetic patients (62.6%) never received any diabetic education.<sup>2</sup> Other studies conducted on the same subject have given similar results. Besides patients, some studies showed that the members of the patient's family also have a very poor knowledge about the diabetes and even in family physicians. Therefore, the education and controlling about the diabetes in the peoples found very poor due to the So the level of awareness in diabetic population of Pakistan regarding diabetes and its management is found to be poor, because the proper education and public awareness are not existed [12]. A few centers like Baqai Institute of Endocrinology Karachi have well established structure of diabetes education. The three have been published by the national diabetic survey of Pakistan the prevailing rates of the diabetes will be increase with the increase in age, the absolute most critical

determinant of hazard. as in Pakistan the expectancy of life increases, anticipated pervasiveness rates of Diabetes Mellitus will increment altogether. The urbanization of the populace and appropriation of progressively stationary way of life and the western foods control plans may likewise add to the expanding rates [13], [14].

## CONCLUSION

Patient awareness on diabetes and its complications, compliance with medication, dietary restrictions and life style modifications can help to achieve patient specific goals, as effectiveness of medications and decrease in the likelihood of adverse events, in all types of diabetes and in all age groups of people with diabetes. The pharmacist plays a key role in acquiring success. our task is to provide insulin to the patients of type 1 diabetes in a physiologic way as conceivable matched insulin for ingestion. The patients of Type 2 Diabetes have numerous choices which ought to incorporate at least 1 operator that diminish insulin protection if conceivable regardless of the possibility that they have achieved a state where they need insulin as a component of their treatment.

## REFERENCES

1. Home, P.D., et al., *Three-year data from 5 HARMONY phase 3 clinical trials of abiglutide in type 2 diabetes mellitus: long-term efficacy with or without rescue therapy*. Diabetes Research and Clinical Practice, 2017.
2. Pettit, S., et al., *Glycaemic control in people with type 2 diabetes mellitus during and after cancer treatment: A systematic review and meta-analysis*. PloS one, 2017. **12**(5): p. e0176941.
3. Su, K., et al., *Phase III Study on Efficacy and Safety of Triple Combination (Exenatide/Metformin/Biphasic Insulin Aspart) Therapy for Type 2 Diabetes Mellitus*. American journal of therapeutics, 2017.

4. Oh, J.-Y., M.A. Allison, and E. Barrett-Connor, *Different impacts of hypertension and diabetes mellitus on all-cause and cardiovascular mortality in community-dwelling older adults: the Rancho Bernardo Study*. Journal of hypertension, 2017. **35**(1): p. 55-62.
5. Fokkens, B.T., et al., *Vitreous advanced glycation endproducts and  $\alpha$ -dicarbonyls in retinal detachment patients with type 2 diabetes mellitus and non-diabetic controls*. PloS one, 2017. **12**(3): p. e0173379.
6. Ahrén, B., et al., *Albiglutide for the treatment of type 2 diabetes mellitus: An integrated safety analysis of the HARMONY phase 3 trials*. diabetes research and clinical practice, 2017. **126**: p. 230-239.
7. Young, L.H., et al., *Cardiac Outcomes After Ischemic Stroke or Transient Ischemic Attack: Effects of Pioglitazone in Patients With Insulin Resistance Without Diabetes Mellitus*. Circulation, 2017. **135**(20): p. 1882.
8. Yeh, C., et al., *Comparison of consumption behavior and appetite sensations among patients with type 2 diabetes mellitus after bariatric surgery*. PeerJ, 2017. **5**: p. e3090.
9. Napoli, N., et al., *Mechanisms of diabetes mellitus-induced bone fragility*. Nature Reviews Endocrinology, 2017. **13**(4): p. 208-219.
10. Perez-Nieves, M., et al., *Basal insulin initiation use and experience among people with type 2 diabetes mellitus with different patterns of persistence: results from a multinational survey*. Current Medical Research and Opinion, 2017(just-accepted): p. 1-25.
11. Chilton, R., *Introduction*. 2017, Elsevier.
12. Qaseem, A., et al., *Oral Pharmacologic Treatment of Type 2 Diabetes Mellitus: A Clinical Practice Guideline Update From the American College of Physicians*. Oral Pharmacologic Treatment of Type 2 Diabetes Mellitus. Annals of internal medicine, 2017. **166**(4): p. 279-290.
13. Capozzi, J.D., et al., *The Prevalence of Diabetes Mellitus and Routine Hemoglobin A1c Screening in Elective Total Joint Arthroplasty Patients*. The Journal of arthroplasty, 2017. **32**(1): p. 304-308.
14. Zinman, B., et al., *Empagliflozin and cerebrovascular events in patients with type 2 diabetes mellitus at high cardiovascular risk*. Stroke, 2017: p. STROKEAHA.116.015756.