

## Research Article

### **Type 1 and type 2 Diabetes Patients' Perspectives: management of disease**

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#### **ABSTRACT**

Diabetes mellitus, also called diabetes, is a term for several conditions involving how your body turns food into energy. Type 1 diabetes is a chronic autoimmune condition that makes the body unable to produce insulin, the hormone that regulates blood sugar. Type 2 diabetes occurs when the body cannot properly use insulin, a hormone that regulates blood sugar. This is also known as insulin resistance.

Complications include Cardiovascular issues including coronary artery disease, chest pain, heart attack, stroke, high blood pressure, high cholesterol, atherosclerosis (narrowing of the arteries), Nerve damage, Kidney damage, Eye damage, Foot damage, Skin infections, Erectile dysfunction, Hearing loss, Depression, Dementia, Dental problems.

The aim of this study was to investigate the awareness of people in accordance to type 1 and 2 diabetes, aimed to develop educational programs to increase the level of knowledge of diabetes mellitus prevention.

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

#### **INTRODUCTION**

Diabetes mellitus (DM) is one of the most challenging health care issues of the twenty first century. Type 2 diabetes (T2DM) is the most common form of diabetes and affects more than 90% of people with diabetes. In addition to genetic pre-disposition, physical inactivity, obesity, and unhealthy eating habits are significant risk factors for T2DM (1, 2). In Pakistan, the diabetes prevalence rate is currently 6.9%, but it is projected to reach 15% by 2040, giving Pakistan the fourth highest prevalence of diabetes globally (3).

So due to that the sugar level in the body will be raised. And due to that mostly peoples mentions

diabetes as sugar. Diabetes is the reason of many health problems like, heart diseases, failure of kidneys and loss of eyesight and sometimes to loss of important body organs. Now a day's diabetes is the main cause of deaths in the world(4).

#### **Kinds of diabetes**

##### **Type 1**

This type of diabetes is called a young diabetes, it is almost evolving in a young age people; and although type 1 diabetes could also be found in adults. In this type of diabetes, the body is not being able to produce the sufficient insulin because the immunes system of the body which

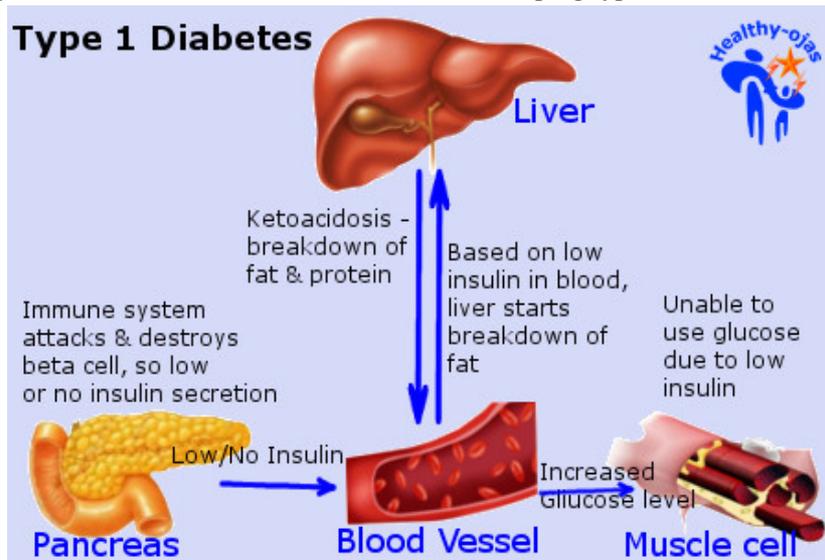
shows resistance against the bacteria to infect your body, injurious elements and other viruses which attacked on those cell which produce insulin in the human body(5).

Type 1 diabetes is caused by an autoimmune reaction where the body's defence system attacks the cells that produce insulin. As a result, the body produces very little or no insulin. The exact causes of this are not yet known, but are linked to a

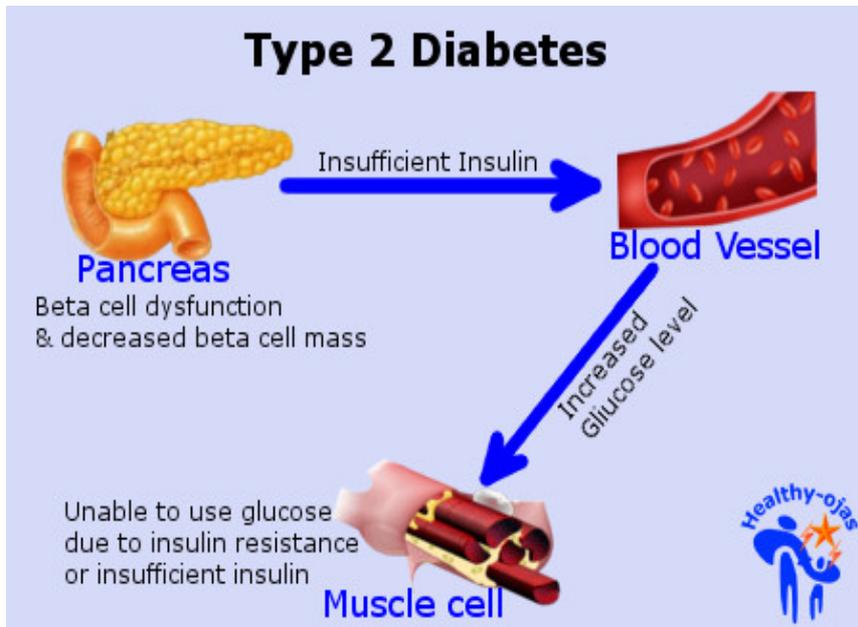
combination of genetic and environmental conditions.

The risk factors for type 1 diabetes are still being researched. However, having a family member with type 1 diabetes slightly increases the risk of developing the disease.

Environmental factors and exposure to some viral infections have also been linked to the risk of developing type 1 diabetes.



**Fig 1:** Type 1 DM usually occurs at a younger age, and there is no successful interventions to prevent the disease.



**Fig2:** Type 2 DM often occurs later in a client's life due to obesity, inactivity, and hereditary. (7)



**Fig3:** Signs and symptoms(8)

### Symptoms of type 1 diabetes

The most common symptoms of type 1 diabetes include:

- Abnormal thirst and dry mouth
- Sudden weight loss
- Frequent urination
- Lack of energy, tiredness
- Constant hunger
- Blurred vision
- Bedwetting

Diagnosing type 1 diabetes can be difficult so additional tests may be required to confirm a diagnosis.

### Remedial action against type-1 diabetes

a) Taking the insulin injections and medicines properly.

- b) Always eat healthy foods.
- c) Should participate in the physical activities.
- d) In type-1 diabetes blood pressure level should be controlled and also the cholesterol level the body should also be under control.
- e) **Rapid-acting:** usually taken just before or with a meal. These insulins act very quickly to limit the rise in blood sugar, which follows eating. It is essential to avoid overdosage to minimize the risk of low blood sugar (hypoglycemia). Rapid-acting insulins include Asparat, Glulisine, Lispro.
- f) **Short-acting:** usually taken before meals. These insulins are also called regular or neutral insulins. They do not act as quickly as rapid-acting insulins and therefore may be more appropriate in certain people. Short-

acting insulins include Actrapid, Humulin R, Insuman Rapid.

- g) **Intermediate-acting:** often taken together with a short-acting insulin. Intermediate-acting insulins start to act within the first hour of injecting, followed by a period of peak activity lasting up to 7 hours. Intermediate acting insulins include Humulin NPH, Protaphane, Insulatard.
- h) **Long-acting:** insulins that are steadily released and can last in the body for up to 24 hours. They are commonly taken in the morning or in the evening, before going to bed. Long-acting insulins include Detemir, Glargine.

### ***Self-monitoring***

People with diabetes who require insulin need to check their blood glucose levels regularly to inform insulin dosage. Self-monitoring of blood glucose (SBMG) is the name given to the process of blood glucose testing by people with diabetes at home, school, work or elsewhere.

### **Healthy nutrition**

healthy diet for all people with diabetes includes reducing the amount of calories if you are overweight, replacing **saturated fats** (eg. cream, cheese, butter) with **unsaturated fats** (eg. avocado, nuts, olive and vegetable oils), **eating dietary fibre** (eg. fruit, vegetables, whole grains), and **avoiding tobacco use, excessive alcohol and added sugar**.

### **Physical activity**

Regular physical activity is essential to help keep blood glucose levels under control.

### **Prevention of type 1 diabetes**

some evidence that overweight and a high growth rate in children are weak risk factors, indicating that a healthy lifestyle that avoids both over-eating and a sedentary lifestyle is recommended for high-risk groups such as the siblings of children with type 1 diabetes.

### **Type 2**

It is generally characterized by insulin resistance, where the body does not fully respond to insulin. Because insulin cannot work properly, blood glucose levels keep rising, releasing more insulin. For some people with type 2 diabetes this can eventually exhaust the pancreas, resulting in the body producing less and less insulin, causing even higher blood sugar levels (hyperglycaemia).

Type 2 diabetes is most commonly diagnosed in older adults, but is increasingly seen in children, adolescents and younger adults due to rising levels of obesity, physical inactivity and poor diet.

Normally the type-2 diabetes start with the resistance of the insulin this type of condition occurs when the liver and muscles does not use insulin that transfer the glucose in the cells of the body which the body use for energy. So at the end the glucose wants extra insulin to enter into the cells in the body. Initially the pancreas maintains the level of insulin in the body by making more insulin. But after some time the pancreas will not be able to produce the required insulin because when the blood pressure is increased then the pancreas will not to produce the sufficient specially after the meal. So if your pancreas can not produce the sufficient insulin then you are required to get treatment for the type -2 diabetes(2).

Type 2 diabetes is a growing health problem globally; however, awareness about diabetes remains low.

### **Risk factors**

Several **risk factors** have been associated with type 2 diabetes and include:

- Family history of diabetes
- Overweight
- Unhealthy diet
- Physical inactivity
- Increasing age
- High blood pressure
- Ethnicity
- Impaired glucose tolerance (IGT)\*
- History of gestational diabetes

- Poor nutrition during pregnancy

### **Symptoms of type 2 diabetes**

- Excessive thirst and dry mouth
- Frequent urination
- Lack of energy, tiredness
- Slow healing wounds
- Recurrent infections in the skin
- Blurred vision
- Tingling or numbness in hands and feet.

These symptoms can be **mild or absent** and so people with type 2 diabetes may live several years with the condition before being diagnosed.

### **Management of type 2 diabetes**

The cornerstone of managing type 2 diabetes is a **healthy lifestyle**, which includes a healthy diet, regular physical activity, not smoking, and maintaining a healthy body weight.

### **Prevention of type 2 diabetes**

here are a number of factors that influence the development of type 2 diabetes. The most influential are lifestyle behaviours commonly associated with urbanisation. Research indicates that a **majority of cases** of type 2 diabetes could be prevented through **healthy diet** and **regular physical activity**.

### **Remedial action for type-2 diabetes**

- a) Medicines should be used properly for the diabetes.
- b) Healthy foods should be eaten.
- c) Should be participate in physical activities.
- d) Blood pressure should be control.
- e) Cholesterol level should also be control.

The conceivable dangers of numerous medication regimens (polypharmacy) in a diabetic patient can likewise be limited by a drug specialist(Iqbal, ul Haq, Bashir, & Bashaar, 2017).

### **Recommendations for a healthy diet for the general population**

1. Choosing water, coffee or tea instead of fruit juice, soda, or other sugar sweetened beverages.
2. Eating at least three servings of vegetable every day, including green leafy vegetables.
3. Eating up to three servings of fresh fruit every day.
4. Choosing nuts, a piece of fresh fruit, or unsweetened yoghurt for a snack.
5. Limiting alcohol intake to a maximum of two standard drinks per day.
6. Choosing lean cuts of white meat, poultry or seafood instead of red or processed meat.
7. Choosing peanut butter instead of chocolate spread or jam.
8. Choosing whole-grain bread, rice, or pasta instead of white bread, rice, or pasta.
9. Choosing unsaturated fats (olive oil, canola oil, corn oil, or sunflower oil) instead of saturated fats (butter, ghee, animal fat, coconut oil or palm oil).(6)

### **CONCLUSION**

This study participant demonstrated poor knowledge about diet planning, the importance of regular exercise, blood sugar testing, and hypoglycemia management. The interviewees also demonstrated the need for counseling by their healthcare providers for diabetes-related self-care practices.

Patient education and motivation for appropriate diabetes self care are of paramount importance to improve patients' disease knowledge and self-care practices.

Despite these limitations, this study is valuable for understanding social concerns about diabetes and its risk factors in Lithuania. It revealed a picture of the foggy understanding the public have about the risk factors for developing diabetes

These findings encourage searching for new ways to approach the community as well as individual diabetic patients on the issue of diabetes.

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