



Introduction

Diabetes is one of the most serious health problems facing the world during the last decade. Increasingly, health care providers are finding more and more children and teens with type 1 diabetes; in addition of finding of large numbers have type 2 diabetes, that disease usually seen in people over age 40. Although there are no accurate national data, some clinics reported that one-third to one-half of all new cases of childhood diabetes is now type 1 (**American Diabetes Association (ADA), 2010**).

Throughout the world, incidences of diabetes are on rise, and consequently, type 1 diabetes in children and adolescents. Most children are affected by type 1 diabetes in childhood. However, the number of children and young adults affected by type 2 diabetes is beginning to rise. Number of young people with type 1 diabetes varies from place to place (*The Global Diabetes Community, 2011*). During the last decade the incidence rate of diabetes type 1 increased. That it represented by about 0.7% among Egyptian children and adolescents and also the prevalence rate whereas, the number of children and adolescents affected with type 1 diabetes was 95146 (*Wrong Diagnosis, 2011*).

The actual causes of the diabetic condition are little understood, in both children and adults. It is widely speculated that diabetes occurred when inherited genetic characteristics are triggered by environmental factors such as diet or exercise. Many children with type 1 diabetes don't have a family history of the disease. However, the exact cause remains a mystery among children. Specific symptoms may include; stomach aches, headaches and behavioral problems. Because type 1 diabetes typically means majority of islet cells have been destroyed and insufficient or zero



insulin can be produced. So, the only certain method of treating diabetes in children is insulin treatment. Usually diabetes care team plan an insulin regimen suited to individual requirements and habits of the child (*Diabetes Forum, 2011*).

Diabetes is a non curable disease. That, the treatment plan is directed toward managing or controlling its course. This can be achieved through balancing insulin, food and exercise. The diabetic child or adolescent may be either exposed to hypoglycemia which may be caused by too little food, too much insulin or more exercise than usual, or hyperglycemia which may be due to too much food, too little insulin, illness, stress or less exercise than normal. So, allowing children and adolescents with diabetes to participate fully and safely in their plan of care is a very important concern in their self care behaviors (*Libman and Rewers, 2004*).

Education is the corner stone of diabetes management. That, it should be a lifelong process and those children and young people with diabetes should be provided with information and a structured program of diabetes-related education (**International Society for Pediatric and Adolescent Diabetes (ISPAD), 2009**).

There are many unique challenges in caring for children and adolescents with diabetes that differentiate pediatric from adult care. These include; the obvious differences in the size of the patients, developmental issues such as the unpredictability of a child's dietary intake, activity level, and medical issues such as; the increased risk of hypoglycemia and diabetic ketoacidosis. Because of these considerations,



the management of a child with type 1 diabetes must be taken into account. Also, the age and developmental maturity of the child must be regarded. Although most children with type 1 diabetes present with the classic signs and symptoms of hyperglycemia without accompanying acidosis, their management depends on their self care behaviors with appropriate supervision (*Lynne et al.,2011*).

Quality of life is the degree of well-being felt by an individual or group of people. Unlike standard of living, it is not tangible thing, and so cannot be measured directly. It consists of two components; physical and psychological. The physical aspect includes; things such as health, diet, and protection against short and long term complications. The psychological aspect includes stress, worry, pleasure and other positive or negative emotional states (*Costanza et al., 2008*).

Quality of life for children with diabetes mellitus refers to subjective well-being focuses on the health related component of life satisfaction such as self care, and community. Assessment of quality of life reflects personal evaluation of daily experience, and resonate with other subjective outcomes, such as; life satisfaction, sense of coherence and self concept (*Michael et al., 2007*).

Significance of the study

Diabetes education programs developed for children and young people have highlighted that educational interventions are useful for improving their knowledge and practice. It is assumed that, improving knowledge and skills leads to better adherence to care and metabolic control (*Martin et al., 2009*).
