

Additional description from the methods:

Clinic specified diabetes care recommendations for insulin, blood glucose monitoring and diet: These were the basis of the adherence tool below as used in this study:

Adherence Tool for insulin, blood glucose monitoring and diet

No.	Question	Response
Insulin recommendations: Do you / your child;		
QE01	Take the amount of insulin that the health care provider prescribed (including adjustments based on blood glucose level)?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometims <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
QE02	Take insulin at the right times? / taking your insulin every time you eat?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometims <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
QC03	Adjust amount of insulin or food based on how much and how strenuously the child has exercised?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometims <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
QE04	Adjust the amount of insulin based on his/her blood glucose levels?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometims <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
QE05	Adjust the amount of insulin appropriately when the child is ill?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometims <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
Blood Glucose Monitoring recommendations		
QE06	Measure blood glucose before every meal?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometims <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
QE07	Detect and respond to early signs of low blood glucose?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometims <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
QE08	Detect and respond to early signs of high blood glucose?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometims <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always

QE09	Attend check-ups at the diabetes clinic every 3 months?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometimes <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
QE10	Keep a “diary” of the amount of insulin they take, and record blood glucose measurements as required by your health care personnel?	<input type="checkbox"/> ₁ Never <input type="checkbox"/> ₂ Sometimes <input type="checkbox"/> ₃ Most of the times <input type="checkbox"/> ₄ Always
Dietary recommendations		
QE11	In the last 24 hours, did you / your child’s meals; Contain all food groups? (starch/grains, animal or plant protein, vegetables and fruits)	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No
QE12	What percentage of the plate was starchy foods (Carbohydrate)? Refer to picture card	<input type="checkbox"/> ₁ 1/2 <input type="checkbox"/> ₂ 1/3 <input type="checkbox"/> ₃ 1/4 <input type="checkbox"/> ₄ 1
QE13	What was the chief mode of preparation of the meals consumed in the past 3 days?(tick all appropriate)	<input type="checkbox"/> ₁ Fried <input type="checkbox"/> ₂ Steamed <input type="checkbox"/> ₃ Boiled
QE14	Do you / your child always eat at pre-established times?	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No
QE15	Did you / your child take any sugar, sugar coated snack, or sweetened fruit juices or beverages in the last 24 hours?	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No

Measurement of Diabetes Knowledge:

The Michigan Diabetes Research and Training Centre’s brief diabetes knowledge test was used. Of the 23 questions in this tool, we adapted 15 questions only as the rest were not applicable in our setting.

Diabetes Knowledge of Caretaker / Adolescent: Questions adapted from the Michigan Diabetes Research and Training Centre’s brief diabetes knowledge test. [The project which resulted into the Michigan Diabetes Research and Training Centre’s brief diabetes knowledge test was supported by Grant Number P30DK092926 (MCDTR) from the National Institute of Diabetes and Digestive and Kidney Diseases]

No.	Question	Response
QB01	Glycated hemoglobin (HbA1c) is a test that measures average blood glucose level in the past weeks	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don’t know
QB02	A piece of chicken has more carbohydrate in it than a piece of potatoes	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don’t know
QB03	Urine testing and blood testing are both equally as good for testing the level of blood glucose	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don’t know
QB04	Unsweetened fruit juice raises blood glucose levels	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don’t know

QB05	Exercising regularly can help reduce high blood pressure	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB06	For a person in good control, exercising has no effect on blood sugar levels	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB07	Infection is likely to cause an increase in blood sugar levels	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB08	Wearing shoes a size bigger than usual helps prevent foot ulcers	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB09	Eating foods lower in fat decreases your risk for heart disease	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB10	Numbness and tingling may be symptoms of nerve disease	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB11	Lung problems are usually associated with having diabetes	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB12	When you are sick with the flu you should test for glucose more often	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB13	High blood glucose levels may be caused by too much insulin	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB14	If you take your morning insulin but skip breakfast your blood glucose level will usually decrease	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know
QB15	Having regular check-ups with your doctor can help spot the early signs of diabetes complications	<input type="checkbox"/> ₁ True <input type="checkbox"/> ₂ False <input type="checkbox"/> ₃ Don't know

Categorisations and scoring:

Category of diabetes knowledge	Cut off	Score for correctly answered questions out of 15
Good	≥80%	≥ 12
Medium	60-79%	9-11
Poor	<60%	<9

Note: Each correctly answered question, a participant scored one point.

Caretaker's involvement in diabetes management related tasks:

- i) Caretaker's involvement in insulin injection supervision:

We measured insulin injection basing on the number of injections supervised or administered by the caregiver out of the total required number in the past 3 days. In the previous three days, some patients were expected to have a maximum of six injections while others nine depending on whether they inject twice or thrice a day. Caretaker involvement in insulin injection supervision was then graded on a scale using a set cut off as very active, slightly active or not active.

Categorisation of caretaker's involvement in insulin injection supervision:

	For participants who inject 3 times per day (total number of injection in 3 days=9)	For participants who inject 2 times per day (total number of injection in 3 days=6)
Category	Cut off for injections supervised	Cut off for injections supervised
Very active	≥7 injections	≥5 injections
Slightly active	5-6 injections	3-4 injections
Not active	<5 injections	<3 injections

ii) caretaker's involvement in diet monitoring:

Caretaker's involvement in diet monitoring was determined by assessing involvement of the caretaker in planning the child's / adolescent's meals. Four questions requiring yes/no responses were used. Caretakers who answered yes to all the four diet monitoring activities stipulated in the questions below were considered as being active while the rest were termed as not active.

Involvement in Diet Monitoring		
QN.1	My caretaker (.....) prepares for me / I prepare for my child a balanced diet for all meals (Carbohydrates, protein, fruits, vegetables)	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No
QN.2	My caretaker (.....) packs for me / I pack for my child a healthy snack when he/she is leaving home	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No
QN.3	My caretaker (.....) encourages me / I encourage my child to drink a lot of water	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No
QN.4	My caretaker (.....) encourages me / I encourage my child to avoid sweets and carbonated sugary drinks	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No

Attitude towards diabetes:

Of the total 10 statements from both factor 5 and 6 of the Diabetes Attitude Scale which required responses of a 5-point likert scale as strongly agree, agree, neutral, disagree and strongly disagree, participants were scored in such a way that a response corresponding to a good attitude resulted into a score of 5 while that corresponding to a poor attitude resulted into a lower score in accordance to the scale (reverse scores were used in some cases). Therefore, a participant could score from 0 to 5 according to their response on a given statement up to a maximum score of 50 for all statements. Participants were regarded as having good, moderate or poor attitude towards diabetes if they scored >80%, 60-79% and <60% respectively of the overall score of 50.

Category of Attitude towards diabetes	Cut off	Score obtained out of 50 expected score from the 10 statements
Good	≥80%	≥40
Medium	60-79%	30-40
Poor	<60%	<9