

Pediatric Diabetes Education Program at UMC Children's Hospital

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BACKGROUND

Receiving a diagnosis of diabetes mellitus as a child does not just affect the child; it becomes a diagnosis for the whole family. Within a short hospital stay, the child (if able) and the family must learn the complex problem-solving skills required for a safe discharge.³

In the summer of 2019, while caring for a patient and family newly diagnosed with diabetes, a bedside nurse (now the Pediatric Clinical Nurse Specialist [CNS]) recognized the lack of a structured education program as a barrier to patient and family teaching. Literature supports that many patients with diabetes do not receive adequate diabetes education, with **less than 7%** receiving education within the first year of their diagnosis.²

In discussions with providers and nurses, there were concerns that the readmission rate for patients with diabetes was high and that having a structured education program could also help reduce the readmission rates.

PURPOSE

This performance improvement project aimed to develop a structured pediatric diabetes education program for the patients and families and decrease the readmission rates for this patient population.

METHODS

Using the nursing shared governance model and the Institute of Health's plan, do, study, act (PDSA) model, an interprofessional task force was established to develop a patient-centered, skills-based educational experience to support patients in making informed self-management decisions. The task force gathered between June 2019 and March 2021 to design the new standardized Pediatric Diabetes Education Program.

Following the shared governance model, the bedside nurse gathered interprofessional stakeholders to begin discussions. The interprofessionals consisted of:

- Bedside Nurse
- Child Life Specialist
- Diabetic Educator
- Pediatric Nurse Educator
- Nursing Leadership
- Dietician
- Hospitalist
- Intensivist
- Pediatric Endocrinologist
- UMC Healthy Living Institute
- UMC Marketing Team
- Healthclips Patient Video Library
- JDRF (Juvenile Diabetes Research Foundation)
- Zynx Health



MY DIABETES

EDUCATION

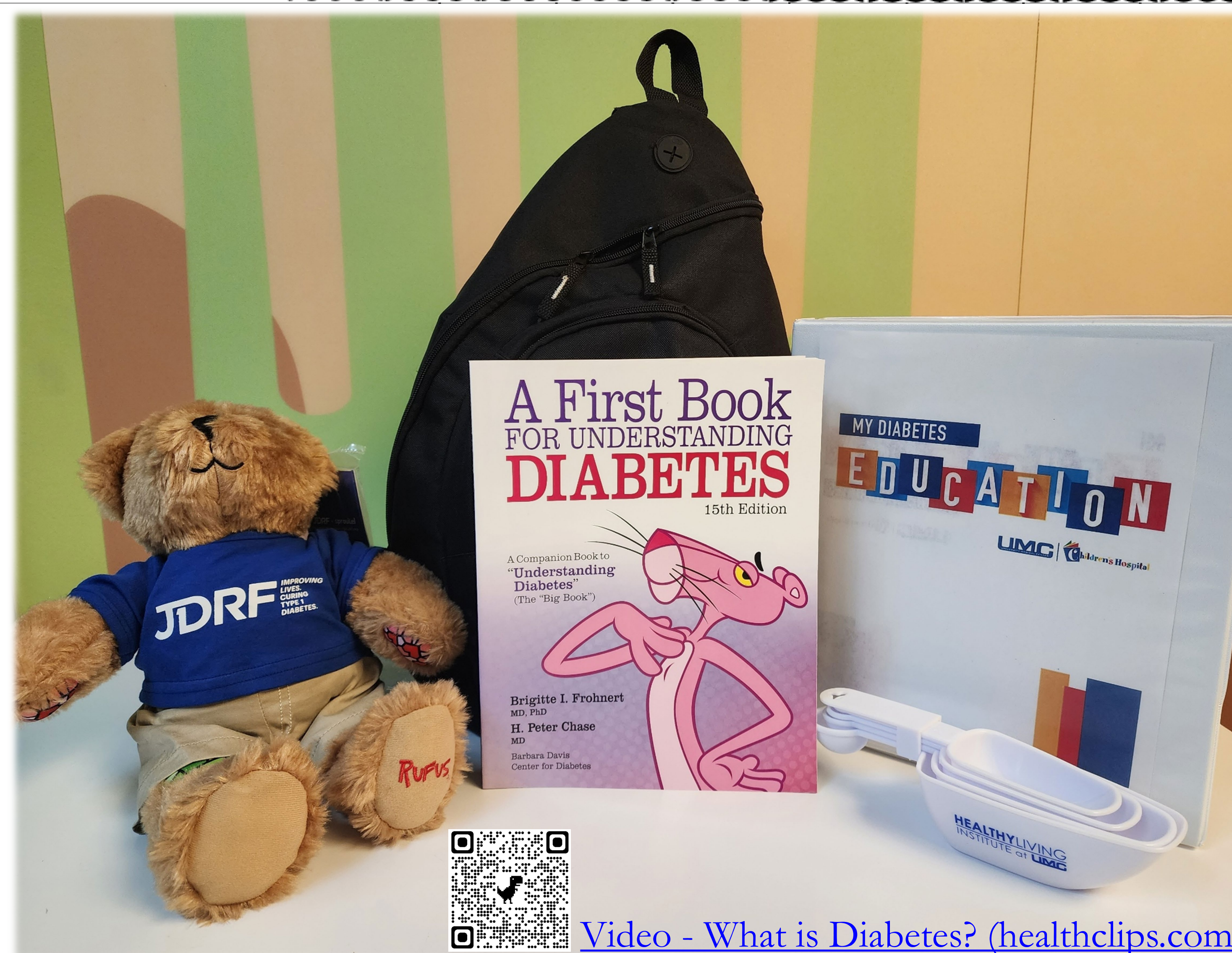


Patient Label

DIABETES EDUCATION CHECKLIST

Primary Caregiver (PC): _____ Secondary Caregiver (SC): _____

ALL PATIENT AND FAMILY TEACHING TO BE DOCUMENTED IN THE ELECTRONIC MEDICAL RECORD ON THE PATIENT EDUCATION TAB



Video - What is Diabetes? (healthclips.com)

RESULTS

Throughout the 21-month process, with delays secondary to COVID-19, the interprofessional team developed a patient-centered, skills-based educational program for the patient. The program consists of the following standardized resources:

- ☺ JDRF Bag-of-hope, which includes the primary teaching book A first book for understanding diabetes (the book is also available in Spanish)
- ☺ UMC's My Diabetes Education Binder, which includes (in both English and Spanish)
 - Diabetes Education Checklist
 - Patient and Family Blood Sugar Worksheet
 - Weekly Blood Glucose Monitoring Log for Patients
 - Learning how to take care of my diabetes daily routine
- ☺ Measuring cups/spoons from UMC's Healthy Living Institute
- ☺ Pediatric-friendly educational videos from Healthclips
- ☺ Evidence-based practice interprofessional plans of care from Zynx Health
- ☺ An interprofessional education team includes the Pediatric APRN-CNS, Bedside Nurses, Dietician, Child Life Specialist, and Physicians/Residents.

All pediatric nurses are trained through online modules on the topic of diabetes and diabetic ketoacidosis and attend a four-hour in-person workshop to learn about the patient and family education program, practice scenarios, documentation practices, and communication with the interprofessional team.

CONCLUSIONS

The patient-centered, skills-based educational program was implemented into practice in April 2021. Each patient and family receives individualized patient-centered education incorporating the values, beliefs, needs, and preferences into the educational experience. Patient and family feedback on the program is essential to its success. Adaptations have been made to the program based on this feedback, such as adding the measuring cups/spoons and providing sample math sheets for high and low blood sugars.

The readmission rates from April 2021 to August 2023 have only seen **one** 30-day readmission for patients who received their initial diagnosis and **zero** 60, 90, or 120-day readmission.

The Pediatric APRN-CNS will continue to monitor the program and conduct a retrospective study of readmission rates before the program and after for both new diagnoses and established.

REFERENCES

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4. Vasireddy, D., Sehgal, M., & Amrithale, A. (2021). Risk Factors, Trends, and Preventive Measures for 30-Day Unplanned Diabetic Ketoacidosis Readmissions in the Pediatric Population. *Cureus*, 13(11), e19205. <https://doi.org/10.7759/cureus.19205>

