

Making Teachers and School Health Nurses Part of Pediatric Diabetes Teams

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What is already known on this topic?

Children with type 1 diabetes require comprehensive care and support to manage their condition effectively in educational settings. Integrating teachers, school nurses, and staff into diabetes care teams has been shown to improve diabetes management and quality of life for these children, although challenges in providing optimal care and preventing discrimination persist.

What this study adds?

This study highlights the significant progress made by the Diabetes at School Program in Türkiye, demonstrating effective strategies for integrating diabetes care into school environments. It underscores the importance of government support, comprehensive training, and designated caregivers in ensuring consistent and equitable care for children with type 1 diabetes in a school environment.

Abstract

Children with diabetes need consistent care across all environments, including school, where they spend significant time. Türkiye's Diabetes at School Program, initiated in 2010, has made substantial progress in integrating diabetes care into the school system. The program's achievements include government support, annual awareness activities, communication between diabetes teams and schools, policy implementation, and training for school staff. A recent meeting of Provincial Health Service Officers highlighted ongoing efforts and future directions for the program, emphasizing the importance of continuous support for children with diabetes in educational settings. Key outcomes of this meeting included designated caregivers for children with diabetes at school, optional administration of insulin by trained staff, mandatory diabetes education for teachers, and health-conscious policies for school activities. The program's success is attributed to the collaborative efforts of teachers, healthcare professionals, and government officials. Ensuring robust support for children with diabetes in schools is vital for their well-being and academic success.

Keywords: Children, diabetes, school

Introduction

For children with diabetes to live healthy, happy, and high-quality lives, they need comprehensive education about their condition. This education should cover the language and math of diabetes, understanding the need for insulin due to non-functioning pancreatic beta cells, and the use of

technology, such as sensors and insulin pumps if necessary. It should also include guidance on consuming carbohydrates with a low glycemic index in moderation and maintaining a regular daily routine. This need for comprehensive diabetes management persists at all times and in all settings where children live. Since children spend more than 30 hours a week at school, the diabetes care and glycemic targets

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during school hours should be consistent with those in other settings. Therefore, improving diabetes care at school and considering diabetes management on a 24-hour basis is crucial (1).

The World Health Organization and the ÇÖZGER directive in Türkiye recognize diabetes as a “special needs condition”. Therefore, schools must plan to address the needs of children with diabetes, including supervision, assistance with low blood glucose, administration or monitoring of insulin via injection or insulin pump, nutritional support, participation and encouragement in physical activities and school trips, and prevention of discrimination, stigmatization, and bullying. Supporting children with diabetes in schools remains a challenge in many countries. On April 24, 2023, a U.S. federal court approved the settlement of a class action lawsuit brought by three parents of students attending public schools in New York city (NY, USA). The plaintiffs alleged that New York city, the Department of Education, the Department of Health and Mental Hygiene, and the Office of School Health violated the Americans with Disabilities Act by failing to ensure that students with diabetes could attend school safely and enjoy the same educational opportunities as their classmates (2).

The essence of this case and of living with diabetes in school is that students with type 1 diabetes should participate in school life on an equal basis with their peers and that parents cannot be expected to make up for a lack of school resources and be involved in their child's medical care all day long.

Outcomes of the Diabetes at School Program

The Diabetes at School Program, launched in Türkiye in 2010, aimed to support children with type 1 diabetes in the school environment and integrate teachers and school nurses into diabetes teams. Despite significant progress, with 38 activities conducted over 14 years, many challenges remain (3). The program's key achievements include (4):

Government Support: The Ministries of National Education and Health have taken ownership of the program, assigning relevant personnel centrally.

Awareness Initiatives: November 14, World Diabetes Day, is recognized in schools, with awareness activities organized annually.

Communication with Schools: Pediatric Diabetes Teams send “Letters to Teachers” and “Diabetes Management Plans” to schools.

Provincial Health Service Assignments: Provincial health service officers from the Ministry of National Education are designated to focus on this issue.

Policy Implementation: The “Directive on the Care and Support of Students with Type 1 Diabetes at School” was published on October 14, 2020.

Educational Platform: The Diabetes in School Program Education Platform was launched (<https://okuldadiyabet.meb.gov.tr>).

School Training: Community health nurses from the Ministry of Health provide training in schools.

School Healthcare Staff Recruitment: The number of school health nurses has increased, and dietitians are being appointed in various provinces.

New Phase in the Diabetes at School Program: Ministry of National Education Provincial Health Service Officers Meeting

A meeting of the Provincial Health Service Officers of the Ministry of National Education for the Diabetes in School Program was successfully held on May 17-18, 2024. This meeting aimed to evaluate the conditions and challenges faced by approximately 26,000 children with type 1 diabetes, most of whom are in primary school, in the school environment.

Currently, school health initiatives within the Ministry of National Education are managed by the Health Services Branch under the General Directorate of Support Services, Department of Workplace Health and Safety. Health Service Officers operate in the provinces and districts of large cities under this branch. The Diabetes at School Program is a key initiative managed by this branch, highlighting the commitment to addressing the needs of students with diabetes in the educational setting.

On the first day of the meeting, awards were presented to 15 individuals selected from among teachers, school administrators, school health nurses, and other school staff who could be “Diabetes in School Program Ambassadors.” These individuals were recognized for their exemplary efforts in identifying children with diabetes symptoms in their classrooms, ensuring early diagnosis, and supporting the care of children with diabetes. During the award ceremony, each awardee and the provincial health service officer from the Ministry of National Education of their province were invited to the stage together. The awardees were thanked with the words, *“Thank you very much for your support to children with diabetes by taking responsibility and making an exemplary effort in line with the objectives of the Diabetes in School Program. Your students and we will always remember the value of your contribution,”* and they were presented with a plaque. Following the presentation, the awardees gave brief speeches about their work in their respective provinces. These speeches highlighted that the Diabetes in School

Program had even effectively reached the mountain villages. They demonstrated that school administrators, teachers, and school nurses, acting as “diabetes ambassadors,” had made significant contributions in various areas. This included supporting children with diabetes sensors, aiding in insulin pump treatment, encouraging children with type 1 diabetes to be open about diabetes and stop them hiding their diabetes, and helping them achieve academic success.

Supporting Children with Diabetes is Our Duty!

As the program coordinators, we are very pleased to see that the provincial health service officers and ministry officials from the Ministry of National Education who attended the meeting were working tirelessly to support children with diabetes. We believe that this meeting will be a turning point in terms of supporting children with diabetes in the school environment, and we can say that all of us returned home with the awareness that “Supporting Children with Diabetes is Our Duty.” We can summarize the key outcomes of the meeting as follows:

- After the family informs the school administration or the relevant teacher, a person responsible for the care of the child with type 1 diabetes at school is designated.
- Although it is not a legal obligation, this person can, with the written consent of the family, administer glucagon and insulin injections to children in need, support blood glucose monitoring, and provide additional doses of insulin in consultation with the family when necessary.
- Ensuring that all teachers receive a “Training Certificate” through the Diabetes in School Program Education Platform.
- In schools without nurses, establishing a connection with the nearest family medicine center to provide rapid intervention and support in emergencies.
- Restricting activities such as “Canteen Day” and frequent birthday celebrations in schools, and ensuring that menus are healthy.

Conclusion

In conclusion, even the smallest support we provide to improve the lives of children with type 1 diabetes can create a positive ripple effect, making every effort worthwhile. With this in mind, we would like to thank the teachers who support children with diabetes and administer insulin with

the meticulousness of parents, the team members who work with these children, the directors of the association, the officials of the Ministry of National Education and the Ministry of Health, everyone who works in schools, and Sanofi, which has unconditionally supported the Diabetes at School Program for 13 years.

Footnotes

Authorship Contributions

Surgical and Medical Practices: Şükrü Hatun, Gül Yeşiltepe Mutlu, Zehra Aycan, Concept: Şükrü Hatun, Gül Yeşiltepe Mutlu, Zehra Aycan, Design: Şükrü Hatun, Gül Yeşiltepe Mutlu, Gülcan Kılınç, Zehra Aycan, Data Collection or Processing: Şükrü Hatun, Gül Yeşiltepe Mutlu, Gülcan Kılınç, Zehra Aycan, Analysis or Interpretation: Şükrü Hatun, Gül Yeşiltepe Mutlu, Zehra Aycan, Literature Search: Şükrü Hatun, Gül Yeşiltepe Mutlu, Zehra Aycan, Writing: Şükrü Hatun, Gül Yeşiltepe Mutlu, Zehra Aycan.

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