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Exploration of Social Support and the Impact on School Performance for Students with Type 1 Diabetes

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Abstract

Type 1 diabetes (T1D) presents significant challenges for students, requires complex treatment and monitoring in daily life. This study explores the lived experiences of students with T1D, focusing on the role of social support and the impact on their school performance including academic and non-academic activities. Through qualitative approach employing the phenomenology method, semi-structured interviews were conducted with eight students aged between 13 to 17 living with T1D from two major government hospitals in Malaysia together with their parents/guardians who wished to participate. The interviews were audio recorded, transcribed and thematically analyzed using NVivo 12. Two main themes emerged from the interviews: (1) Social support systems and (2) motivation and commitment, with five sub-themes outlined. The findings revealed that social support from family, teachers and peers significantly impacts their ability to manage diabetes alongside school responsibilities. The study also highlights the critical need for schools to adopt a collaborative and supportive approach to address the challenges faced by students with T1D in managing diabetes. These findings contribute to the necessity of fostering collaborative support networks and developing targeted interventions to further enhance the quality of life and educational outcomes for students with diabetes.

Keywords: Type 1 Diabetes, Social Support, School Performance, Students, Diabetes Management

Introduction

Managing Type 1 Diabetes (T1D) for school-age children presents significant challenges and requires complex treatment and monitoring in daily life including blood glucose monitoring, insulin injections, and dietary control to maintain stable blood glucose levels (Owusu et al., 2023). This can lead to increased psychosocial problems such as anxiety and depression (Ching et al., 2023) and potential disruptions in academic performance and social acceptance (Kucera & Sullivan, 2011; Helgeson et al., 2007).

The important goal of diabetes management is to ensure that students can maintain blood glucose control and improve their quality of life in terms of psychological, physical, and social aspects as well as academic success (Albuhairan et al., 2016). However, the management of T1D is difficult for families and becomes more difficult in the school setting, as students spend a significant time of their day in school. Students with diabetes may find difficulty with diabetes management if there is inadequate understanding and lack of awareness within the school environment (Alaqeel, 2019).

The impact of T1D on school performance has become an important area of research, as parents, teachers, and healthcare providers seek to understand how the condition affects students' learning outcomes and overall school experience. Some studies have found that poor diabetes management had a negative impact on academic achievement among T1D students (Winnick et al., 2017; Aziz & Sulaiman, 2023; Ahmed et al., 2021). According to Jlab & Saab Hasan (2019), poor control of low and high glucose levels can affect the students ability to do schoolwork and participate in school activities. The potential factors that could lead to poor school performance for students with diabetes include decreased school attendance, hypoglycemia and hyperglycemia, cognitive deficiency, and the psychosocial impact of chronic disease (Cooper et al., 2016; Monaghan et al., 2022).

Therefore, social support has emerged as a crucial factor in managing diabetes effectively, with previous research demonstrating positive relationships between social support and treatment adherence (Carreon et al., 2021). Furthermore, higher family support correlates positively with greater emotional well-being and improved self-care skills among students with diabetes (Villaécija et al., 2023). Additionally, support received from teachers and peers in a school setting has been shown to significantly impact the students' psychosocial well-being and management of diabetes while maintaining school performance (Fried et al., 2020).

As we delve deeper into understanding these relationships, a comprehensive support system incorporating both family involvement and school environment is essential to enhance the quality of life and school success of students managing T1D. This study aims to explore the lived experiences of students with T1D, focusing on the interplay between social support and the impact of their condition on school performance. The findings are expected to offer actionable insights for fostering collaborative support networks and developing targeted interventions to further enhance the quality of life and academic success of T1D students.

Methodology

Study Design

This study employed a phenomenological research design to explore the lived experiences of students with T1D, focusing on the role of social support and the impact on their academic and non-academic in school settings. Phenomenology was chosen to capture the essence of participants' personal experiences and the meanings they ascribe to them.

Study Participants

Eight participants were recruited using a purposive sampling technique and parents/guardians who wished to participate were included in the study. This study was conducted at two major government hospitals in Malaysia. The inclusion criteria for the study

participants were students with T1D aged between 13 to 17 and have been diagnosed with diabetes for at least 6 months.

Data Collection

The data were collected using a semi-structured interview which was conducted face-to-face with participants and their parents/guardians. Data were collected between Julai 2019 and October 2020. The interviews were audio recorded with the duration of each interview approximately 45 min to 60 min.

Data Analysis

The interview data obtained from participants were transcribed verbatim and analyzed using six steps of Interpretive Phenomenological Analysis (IPA) approach (Smith et al., 2009). These six steps are 1) reading and re-reading; 2) initial noting; 3) developing emergent themes; 4) searching for connections across emergent themes; 5) moving to the next case; and 6) looking for patterns across cases. Data were organized into themes and sub-themes using NVIVO 12 software.

Ethical Issues

Ethical approval was obtained from the Medical Research & Ethics Committee, Ministry of Health Malaysia (reference number: NMRR-19-3130-50109 (IIR)) for this study. Informed consent was obtained from all participants before the interview session.

Results

The analysis revealed two main themes that emerged from the interviews: (1) Social support systems and (2) Motivation and commitment. The main themes and sub-themes are summarized in Table 1.

Table 1
Themes and sub-themes emerged from interviews with T1D students and their parents/guardians

Main Theme	Sub-themes
Social support systems	Family support
	Teacher support
	Peer support
Motivation and commitment	Academic performance
	Non-academic engagement

Theme 1: Social Support Systems

The finding highlighted three key sources of social support that played crucial roles in helping students manage their diabetes while pursuing their academic and non-academic goals. We identified three primary support systems including support from family members, teachers and peers.

Family Support

The core social support system comes from parents and other family members. They provide emotional encouragement and practical assistance in diabetes management. This support

was particularly crucial during the early stages of diagnosis and continued throughout the students' academic journey. As one guardian described:

> *"Our family gives a lot of advice, and she has to follow the doctor's advice; she needs to control her diet... but when she was a child, she didn't listen... she likes to eat sweets... we always give advice not to eat too much... even if we cook, we reduce the sugar. Now she is okay and listens to our advice."* (Guardian of Participant 6)

Meanwhile, the guardian of participant 3 emphasized the importance of emotional support that can reduce stress to the participant. This emotional support appears particularly valuable in helping students maintain positive attitudes toward their condition.

> *"We always give advice, give support to him... we know he can do it, we always tell him 'It's okay... never mind, you can do it'"* (Guardian of Participant 3).

Besides, one participant's father, who also has diabetes, give a support and offered guidance on dietary choices:

> *"At home my father gives a lot of support...because my father also has diabetes... so when we go out, he always buys fruits only"* (Participant 1)

In addition, siblings also contributed to emotional support by reminding the participants to avoid sugary drinks. This was stated by participant 5 as below:

> *"My siblings also give support…they always remind me not to take a sweet drink"* (Participant 5)

While participant 2 stated that his family provides a lot of support by giving advice on exercise and healthy eating, indicating continuous involvement in providing support and monitoring.

> *"My family gives me a lot of advice to exercise, control diet and eat less sweets"* (Participant 2)

Besides emotional support, family members actively participated in practical assistance for diabetes management. Parents, especially mothers, play a crucial role in helping with diabetes care, particularly when the participants have diabetes at a younger age. They demonstrated commitment to helping students transition to independent self-care.

> *"When he was 9 years old, I helped him check his blood glucose… a year later, he was able to do it himself."* (Guardian of Participant 3)

Another parent shared a similar experience:

> *"Before this, I helped him inject insulin, when the doctor told him to do it himself... he has learned, now he can do it himself. He was 10 years old when I*

helped him… when he was 11 years old, I asked him to learn to inject insulin." (Parent of Participant 4)

Although parents help in the management of diabetes, especially in taking insulin, participants also expressed their awareness of change and took responsibility for self-care in managing diabetes.

"My parents helped me inject insulin, they also helped me check my blood glucose, but when I was 10 years old, I did my own insulin injection and checked my blood glucose." (Participant 7)

Teacher Support

Teachers form a crucial secondary support system, particularly in managing diabetes during school hours. Teachers were informed about students' conditions to provide necessary assistance during emergencies. For example, the participant's parent took the initiative to inform the teacher about their son's condition.

"I went to meet the health teacher. I told him about his illness and asked the teacher to tell his class teacher. The teacher also gave advice to take care of his diet and health." (Parent of Participant 4)

Teachers also provided ongoing support through health monitoring and lifestyle guidance:

"The mathematics teacher always gives support... says I can control it, need to exercise regularly. The counseling teacher also gives advice for me to take care of my health" (Participant 2)

Besides, teachers provide ongoing support through monitoring and guidance regarding physical activities during school hours. They often help students maintain their management routines while at school. As participant 5 shared:

"The doctor told me to tell all the teachers because if anything happens at school, the teachers can help. Sometimes the teacher gives advice to take care of your diet, don't go too hard during sports activities, and if you get tired, stop first." (Participant 5)

Peer Support

Peers were another source of emotional and practical support for students with T1D in a school environment. They are offering unique forms of assistance that complemented family and teacher support. Participant described how friends provided encouragement and practical help in managing diabetes. Participant 1 shared her experience:

"My Malay friend is always giving me advice... She is the only Malay friend who is close to me. She's the one who told the counseling teacher for me to take insulin here (in the counseling room)." (Participant 1)

Peers also provided immediate assistance during hypoglycemic episodes when it occurred in class. This shows the support and interaction of the participants with their friends during school hours when family members are not present.

> *"I told my friend I have diabetes…She understood, and she brought sweets. When I felt my blood sugar low, I ate sweets."* (Participant 5)

Besides, peers play a crucial role in providing emotional support, helping students with diabetes feel accepted. Participant 2 highlighted how his friend gives support to alleviate stress through positive interactions.

> *"My friends know I have diabetes, they give support... They make me happy, they make jokes to make me laugh when they see me stressed."* (Participant 2)

Some peers monitored their dietary choices and gave advice as shared by participant 1 and participant 7. This peer monitoring provides additional support for dietary compliance.

> *"When I want to eat cake, my close friend says, don't... they always say, 'We pray for you... you need to control your eating.'"* (Participant 1)

> *"Not all friends know I have diabetes, only close friends know…they give advice not to eat too much sugar"* (Participant 7)

This supports previous research by Palladino and Helgeson (2012), who found that positive peer relationships significantly influence diabetes management adherence among adolescents. The observation that peers actively participated in dietary monitoring and provided stress relief through positive interactions adds new insights to the understanding of peer support mechanisms.

Theme 2: Motivation and Commitment

The comprehensive support system is an important factor in increasing motivation and commitment among participants to achieve a balance between diabetes management and academic demands and involvement in school activities. The second theme revealed how students maintained their academic performance and non-academic engagement while managing their diabetes condition. The results showed clear links between the support received and educational outcomes.

Academic Performance

Participants demonstrated resilience in maintaining their academic responsibilities while managing diabetes. The collaborative support and awareness from teachers allow participants to handle diabetes without disruption to their learning. Participant 1 shows the ability to maintain focus during lessons and manage low blood sugar episodes if it occurs in class.

> *"In class I can study… I can focus on what the teacher is teaching. During lessons if I feel my blood sugar is low, I raise my hand... the teacher already knows... so I eat some sweets"* (Participant 1)

Other participants also showed the ability to maintain academic focus despite having diabetes. Participants also showed a high commitment to academic achievement, as shared by participant 2.

> *"I can focus when the teacher is teaching. I can complete all my schoolwork. Now I am in Form 4, studying in an economics class... I score in Tamil, Malay, and English subjects."* (Participant 2)

Participant 7 highlights not only the ability to manage diabetes while maintaining academic focus but also shows awareness of educational targets and increased academic motivation.

> *"I can focus during my studies. I can even complete the schoolwork that the teacher gives me. Before, I didn't care much about academics, but now I'm serious because of the SPM exams."* (Participant 7)

Whereas appropriate educational support, combined with understanding teachers and a supportive learning environment, could enhance student motivation and academic performance. The guardian of participant 3 shared:

> *"After joining the Special Education class, he really enjoyed going to school... because the teacher was supportive, there were fewer students. His performance was very good. During the PASR examination... like UPSR, he achieved excellence."* (Guardian of Participant 3)

Non-Academic Engagement

The findings showed that students with diabetes actively participated in non-academic activities, including sports and extracurricular activities. Participants learned to adapt their participation based on their health needs while remaining actively involved. For instance, participant 1 shared:

> *"I'm active in netball, but I haven't entered competitions yet...I'm also involved in extracurricular activities. When I involved in running competitions at school… If I feel like my blood sugar is low, I have to stop for a while to eat a snack or sweets... then I run again. The teacher told me that those who are sick don't need to run, but I want to run because exercise is good for people with diabetes."* (Participant 1)

Other participants emphasized involvement in extracurricular activities, sports and marching. This involvement demonstrates how students with diabetes can maintain regular participation in school activities. Participant 2 shared:

> *"I'm active in sports such as badminton and football. I joined the police cadets… participating in marching and training 2 to 3 days a week."* (Participant 2)

Similarly, participant 5 was also actively involved in sports and marching. This shows the commitment to school activities and the desire to remain active despite having diabetes.

> *"In primary school, I participated in sports... javelin throw and long jump... I also joined training and competitions for marching."* (Participant 5)

Participants also demonstrated thoughtful engagement in physical activities, supported by understanding from teachers. The participants' ability to maintain the involvement reflects both their personal commitment to staying active and the effectiveness of support systems in enabling safe participation in school activities. One of the guardians describes:

> *"Every week he plays sports...Even at school, he plays badminton, soccer, or netball. We will inform the teacher that if he plays sports, he must take a break… so the teacher understands."* (Guardian of Participant 3)

However, participant 3 shared his experiences of receiving advice from teachers not to participate in sports activities due to safety considerations. This approach reflects an understanding among teachers and students about balancing physical activities with health safety. As participant 3 explained:

> *"During a running event at school, the teacher advised me not to run because he was afraid if I fainted... so I didn't run. The teacher knew I had diabetes."* (Participant 3)

Discussion

This study explores the lived experiences of students with T1D, focusing on the role of social support systems and the impact on their academic and non-academic activities in school settings. The findings highlight the crucial role of social support systems in helping students with T1D manage their condition. Support from family, especially parents, was important for students towards helping them in the management of diabetes by providing emotional support and practical assistance. Previous research has shown that parents are important for supporting their child in diabetes management (DeCosta et al., 2020). According to Holmström & Söderberg (2022), students with T1D received ongoing support from parents, especially mothers, to help them to manage their illness in a positive way. Scholes et al. (2013) in their research proved that parental involvement in supporting their children was associated with good glycemic control. Family involvement can alleviate the emotional burdens associated with diabetes management, and it can lead to improved diabetes management (Whittemore et al., 2012).

In a school setting, the role of teachers and friends is also important to create a supportive environment and encourage students with T1D to manage their condition effectively. Our findings revealed that teachers not only provided practical support during emergencies but also offered ongoing guidance for health monitoring and physical activities. This finding aligns with research by Sparapani et al. (2017), who reported the integration between understanding of diabetes, self-care and the support needed in the school environment. They emphasized the importance of supportive teachers and friends in creating safe environments for students with T1D. Previous research also showed that school staff providing direct support to students with diabetes significantly increases students' confidence, resilience and adaptation to diabetes management at school (Marshall, 2017). This study also revealed that peers provided both emotional support and practical assistance during hypoglycemic

episodes, with previous research demonstrating positive peer relationships significantly influence diabetes management adherence among students with T1D (Palladino & Helgeson, 2012). Therefore, collaboration between schools, families, and students with T1D is essential to ensure that students receive consistent support and increase their ability to manage diabetes at school effectively.

Comprehensive support systems enabled students to maintain both academic performance and non-academic engagement. The ability of students to balance diabetes management with academic responsibilities while maintaining focus during lessons demonstrates the effectiveness of collaborative support networks. According to Fried et al., (2020), schools play an important role in providing interpersonal support for students with T1D, including diabetes management, academic support, and emotional support. Moreover, the motivational encouragement provided by teachers and peers boosted students' commitment to academic performance. This finding aligns with previous research by Perfect & Jaramillo (2012), who found that appropriate support systems in school can help students with T1D achieve academic success. Besides, research by Winnick et al. (2017) and Mitchell et al. (2022) also highlighted the importance of diabetes management and glucose control in maintaining academic achievement. This suggests that teacher and peer involvement can increase students' confidence in managing diabetes, which ultimately leads to better academic outcomes.

This study also found that students with T1D actively participated in non-academic activities such as sport and extracurricular activities demonstrated their motivation and commitment to school engagement. Their ability to adapt physical activities based on health needs reflects their resilience and the effectiveness of support systems. Research by MacMillan et al. (2015) highlighted the need for support from schools and teachers for students with T1D to participate in extracurricular activities at school. They also suggested strategies that teachers can use to ensure a supportive environment for students with T1D to participate in physical and extracurricular activities, such as communicating with them during activities, building trust and demonstrating confidence in managing diabetes, creating awareness about the benefits of physical activity, and involving peers to help students with T1D. Therefore, teachers play an important role in ensuring safe participation for students involved in school activities. Teachers' awareness of the health needs of students with diabetes, such as providing a supportive environment and helping students manage their diabetes safely, can prevent hypoglycemia during school hours. Cox et al. (2017) suggested that students with diabetes can participate in physical activity and a healthy lifestyle at school but require continuous monitoring of blood glucose levels by the school personnel.

In summary, this study emphasizes how well-coordinated support from family, teachers, and peers can create a conducive environment for T1D students for effective diabetes management and enable students to navigate their academic and non-academic responsibilities effectively.

Conclusions

This study provides valuable insights into the roles of family, teachers, and peers in supporting students with T1D to manage diabetes effectively in an educational setting. The study also highlights the critical need for schools to adopt a collaborative and supportive

approach to address the challenges faced by students with T1D in managing diabetes. The findings demonstrate how informed and supportive teachers and peers can create environments enabling full participation in both academic and non-academic activities while maintaining effective diabetes management. Furthermore, the findings contribute to the necessity of fostering collaborative support networks from various stakeholders, including healthcare providers, educators, school administrators and policy makers to develop targeted interventions to further enhance the quality of life and educational outcomes for students with diabetes.

This study contributes to the existing literature by providing a detailed understanding of social support systems in chronic disease management within educational settings. It expands the dynamic interplay between emotional, practical, and motivational support, emphasizing the collective roles of family, teachers, and peers. Within the specific context of Malaysian schools, this research addresses a critical gap in understanding how cultural and institutional factors influence diabetes management among students and how support systems can be effectively structured to promote student autonomy on the transition to self-management while maintaining necessary oversight. This contextual understanding is significant as it offers a framework for developing culturally appropriate interventions that can be applied to similar educational settings, contributing to the broader theoretical discourse on chronic disease management in educational environments.

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References

Ahmed, A., Burbur, A., Babiker, S., Mohamed, S., ELseed, M., & Saad, F. (2021). Impact of type 1 diabetes mellitus on the academic performance of diabetic school children in Khartoum, Sudan. *Sudanese Journal of Paediatrics*, *21*(2), 123–130. https://doi.org/10.24911/sjp.106-1607168438

Alaqeel, A. A. (2019). Are children and adolescents with type 1 diabetes in Saudi Arabia safe at school? *Saudi Medical Journal*, *40*(10), 1019–1026. https://doi.org/10.15537/SMJ.2019.10.24582

Albuhairan, F., Nasim, M., Al, A., Shaheen, N. A., Al, S., & Al, I. (2016). Health related quality of life and family impact of type 1 diabetes among adolescents in Saudi Arabia. *Diabetes Research and Clinical Practice*, *4*, 173–179. https://doi.org/http://dx.doi.org/10.1016/j.diabres.2016.01.001

Aziz, B. M., & Sulaiman, K. H. (2023). School Performance Among a Sample of Type1 Diabetic Children and Adolescents in Erbil City. *Pakistan Journal of Medical and Health Sciences*, *17*(2), 317–322. https://doi.org/10.53350/pjmhs2023172317

Carreon, S. A., Duran, B., Tang, T. S., Streisand, R., Anderson, B. J., Lyons, S. K., McKay, S., & Hilliard, M. E. (2021). Here for You: A Review of Social Support Research in Young Adults With Diabetes. *Diabetes Spectrum*, *34*(4), 363–370. https://doi.org/10.2337/dsi21-0013

Cooper, M. N., Mcnamara, K. A., de Klerk, N. H., Davis, E. A., & Jones, T. W. (2016). School performance in children with type 1 diabetes: A contemporary population-based study. *Pediatric Diabetes*, *17*(2), 101–111. https://doi.org/10.1111/pedi.12243

Cox, C., Jameson, P., & Ferguson, S. (2017). Management of Children With Diabetes in the School Setting. *The Diabetes Educator*, *43*(1), 34–39. https://doi.org/10.1177/0145721716683812

DeCosta, P., Grabowski, D., & Skinner, T. C. (2020). The psychosocial experience and needs of children newly diagnosed with type 1 diabetes from their own perspective: a systematic and narrative review. *Diabetic Medicine*, *37*(10), 1640–1652. https://doi.org/10.1111/dme.14354

Fried, L., Cross, D., Pearce, N., Lin, A., Vithiatharan, R., Monks, H., Jones, C., & Davis, E. (2020). Lessons from schools with high levels of support for students with type 1 diabetes: A qualitative study. *Issues in Educational Research*, *30*(2), 512–531.

Helgeson, V. S., Snyder, P. R., Escobar, O., Siminerio, L., & Becker, D. (2007). Comparison of Adolescents with and without Diabetes on Indices of Psychosocial Functioning for Three Years. *Ournal of Pediatric Psychology*, *32*(7), 794–806. https://doi.org/10.1093/jpepsy/jsm020

Holmström, M. R., & Söderberg, S. (2022). The lived experiences of young people living with type 1 diabetes: A hermeneutic study. *Nursing Open*, *9*(6), 2878–2886. https://doi.org/10.1002/nop2.995

Jlab, A. K., & Saab Hasan, A. (2019). School performance among diabetic Children and adolescents. *Al-Qadisiyah Medical Journal*, *15*(1), 61–75. https://doi.org/10.28922/qmj.2019.15.1.61-75

Kucera, M., & Sullivan, A. L. (2011). The educational implications of type i diabetes mellitus: A review of research and recommendations for school psychological practice. *Psychology in the Schools*, *48*(6), 587–603. https://doi.org/10.1002/pits.20573

MacMillan, F., Kirk, A., Mutrie, N., Moola, F., & Robertson, K. (2015). Supporting participation in physical education at school in youth with type 1 diabetes: Perceptions of teachers, youth with type 1 diabetes, parents and diabetes professionals. *European Physical Education Review*, *21*(1), 3–30. https://doi.org/10.1177/1356336X14534367

Marshall, M. (2017). Supporting young children with type 1 diabetes in primary schools in the north of England. *Journal of Diabetes Nursing*, *21*(6), 217–222.

Mitchell, R. J., McMaugh, A., Woodhead, H., Lystad, R. P., Zurynski, Y., Badgery-Parker, T., Cameron, C. M., & Hng, T. M. (2022). The impact of type 1 diabetes mellitus in childhood on academic performance: A matched population-based cohort study. *Pediatric Diabetes*, *23*(3), 411–420. https://doi.org/10.1111/pedi.13317

Monaghan, M., Bryant, B. L., Inverso, H., Moore, H. R., & Streisand, R. (2022). Young Children with Type 1 Diabetes: Recent Advances in Behavioral Research. *Current Diabetes Reports*, *22*(6), 247–256. https://doi.org/10.1007/s11892-022-01465-0

Palladino, D. K., & Helgeson, V. S. (2012). Friends or foes? A review of peer influence on self-care and glycemic control in adolescents with type 1 diabetes. *J Pediatr Psychol*, *37*(5), 591–603. https://doi.org/10.1093/jpepsy/jss009

Perfect, M. M., & Jaramillo, E. (2012). Relations between resiliency, diabetes-related quality of life, and disease markers to school-related outcomes in adolescents with diabetes. *School Psychology Quarterly*, *27*(1), 29–40. https://doi.org/10.1037/a0027984

Scholes, C., Mandleco, B., Roper, S., Dearing, K., Dyches, T., & Freeborn, D. (2013). A qualitative study of young people's perspectives of living with type 1 diabetes: Do perceptions vary by levels of metabolic control? *Journal of Advanced Nursing*, *69*(6), 1235–1247. https://doi.org/10.1111/j.1365-2648.2012.06111.x

Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative Phenomenological Analysis:*

Theory, Method and Research. SAGE Publication Ltd.

Sparapani, V. de C., Liberatore, R. D. R., Damião, E. B. C., de Oliveira Dantas, I. R., de Camargo, R. A. A., & Nascimento, L. C. (2017). Children With Type 1 Diabetes Mellitus: Self-Management Experiences in School. *Journal of School Health*, *87*(8), 623–629. https://doi.org/10.1111/josh.12529

Villaécija, J., Luque, B., Castillo-Mayén, R., Farhane-Medina, N. Z., & Tabernero, C. (2023). Influence of Family Social Support and Diabetes Self-Efficacy on the Emotional Wellbeing of Children and Adolescents with Type 1 Diabetes: A Longitudinal Study. *Children*, *10*(7), 1196. https://doi.org/10.3390/children10071196

Whittemore, R., Jaser, S., Chao, A., Jang, M., & Grey, M. (2012). Psychological Experience of Parents of Children With Type 1 Diabetes. *Diabetes Educ.*, *38*(4), 562–579. https://doi.org/10.1177/0145721712445216

Winnick, J. B., Berg, C. A., Wiebe, D. J., Schaefer, B. A., Leia, P.-W., & Butner, J. E. (2017). Metabolic Control and Academic Achievement over Time among Adolescents with Type 1 Diabetes. *Sch Psychol Q.*, *32*(1), 105–117. https://doi.org/10.1037/spq0000190