

Supporting neurodivergence in diabetes care: clinical implications, adaptations and practical strategies

Sarah has type 1 diabetes. Her HbA_{1c} remains above target despite repeated education sessions. She frequently forgets insulin doses, misses appointments and struggles to implement agreed plans between consultations. Her notes describe her as “difficult to engage”. This is not an unfamiliar scenario in diabetes care, but what happens if we approach this differently?

Neurodivergence is an umbrella term describing people whose brains develop, function or process information differently from what is considered typical. It remains under-recognised in healthcare, especially in adults. As rates of adult diagnosis continue to rise, clinicians are likely to encounter neurodivergence more frequently. Many diabetes professionals will already be supporting people who are autistic, have attention-deficit hyperactivity disorder (ADHD) or other forms of neurodivergence, often without being aware of it.

Around one in 15 people with type 1 diabetes has a neurodevelopmental disorder (Liu et al, 2021). Both ADHD (Ai et al, 2022) and autism (Chen et al, 2016) are associated with an increased risk of developing type 2 diabetes. In people with type 1 diabetes, ADHD is also associated with higher HbA_{1c} and an increased risk of diabetic ketoacidosis and hypoglycaemia compared with those without ADHD (Zare Dehnavi et al, 2024).

Diabetes education often relies on being able to remember instructions, plan ahead, organise equipment, initiate tasks consistently and adapt flexibly to changing situations. Many neurodivergent people experience differences in these skills, making diabetes self-management considerably more challenging.

A person may fully understand the advice provided and genuinely want to follow it, yet struggle to translate that advice into sustainable action. When this happens repeatedly, both the

individual and the clinician can become frustrated.

Many of the behaviours healthcare professionals attempt to change may actually be adaptive responses to environments, systems and expectations that do not fit with an individual’s neurotype. To understand how to support such people, it is helpful to recognise some of the neurodivergent differences that affect interactions with healthcare.

Executive functioning

Executive functioning refers to the mental processes involved in planning, organising, remembering, prioritising and completing tasks. Difficulties with executive functioning are particularly common in neurodivergence. Dysglycaemia may exacerbate executive dysfunction, reinforcing self-management challenges (Nylander and Fernell, 2021).

In diabetes care, this may affect practical aspects of self-management, such as remembering insulin doses and timing, ordering prescriptions, attending appointments, planning meals and counting carbohydrates.

Clinical scenario

“They keep forgetting their insulin.”

Your patient understands their insulin regimen but frequently misses doses.

What might be happening

This may reflect executive functioning differences. Taking insulin requires remembering at the right time, interrupting what you are doing, switching attention, initiating a new task and then returning to what you were doing afterwards. Changes in routine, competing demands and distractions can all interrupt this sequence, making missed doses more likely.

Practical strategies

- Reduce cognitive load by focusing on one or two achievable changes at a time.



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- Link insulin administration to an existing daily routine rather than relying on memory. This is known as habit stacking.
- Use external prompts such as phone alarms, smartwatches, diabetes technology or reminder apps.
- Keep insulin visible and easily accessible, where safe, to reduce the risk of forgetting.

Interoception

Interoception refers to the ability to notice and interpret internal body signals. Many neurodivergent people experience interoceptive differences. Internal signals may be increased, decreased or variable. They may have altered awareness of hunger, fullness, thirst, pain and hypoglycaemia.

Clinical scenario

“They keep missing meals.”

Your patient regularly skips meals or goes long periods without eating and then eats large meals or multiple snacks in the evening.

What might be happening

This may reflect interoceptive differences. The person may not reliably notice hunger or may only recognise it once it becomes overwhelming.

Practical strategies

- Encourage regular eating routines rather than waiting to feel hungry.
- Use external prompts such as alarms, diabetes technology or established daily routines.
- Encourage eating in a calm, familiar sensory environment where internal body signals may be easier to recognise.
- Explore how the individual experiences hunger. Other cues may be tiredness, irritability, difficulty concentrating or feeling light-headed.
- If most food intake occurs in the evening, work with this pattern initially, while gradually introducing opportunities for nourishment earlier in the day.

Communication differences

Communication differences are diverse. People may be non-speaking, need additional processing time,

communicate and question in a highly detailed way or find it difficult to identify which information is most relevant.

Clinical scenario

“They keep interrupting and we never get through the appointment.”

Your patient frequently interrupts, moves between topics, provides extensive detail and their appointments overrun.

What might be happening

This may reflect communication and information processing differences. Thoughts may feel urgent to express before they are forgotten, while details that appear unrelated to the clinician may be essential context to the patient.

Practical strategies

- Agree a shared agenda at the start of the appointment.
- Ask the patient to identify the two or three priorities they want to discuss.
- Signpost clearly when moving between topics and summarise key points.
- Acknowledge the value of what is being shared, whilst gently redirecting the conversation when needed.
- Provide a written summary of agreed actions after the appointment.

Safe foods, sensory needs and dietary advice

Dietary recommendations can be particularly challenging when sensory needs and safe foods are not considered. Standard dietary interventions rely on flexibility and food substitution, which is not always possible.

Safe foods are foods that feel predictable, manageable and acceptable to eat. They may be chosen because of texture, taste, smell, appearance or consistency. Respecting safe foods can build trust and support open discussion about food choices.

Clinical scenario

“They won’t change their diet.”

A limited diet and reliance on processed foods.

What might be happening

The issue may be sensory tolerance; processed foods are predictable in taste and texture.

Practical strategies

- Ask if the person has safe foods and explore the sensory profile of those foods.
- Protect safe foods rather than removing them.
- Focus on additions before restrictions. Keep additions separate, as hiding or mixing them in may reduce tolerance of safe foods.
- Look for foods with similar sensory characteristics.
- Refer for dietetic support where food quantity or variety is limited.

Planning for difficult days

It can be helpful to ask, “What would this look like on a difficult day?” and explore strategies to manage this. People who are neurodivergent have often experienced repeated criticism for struggling to meet expectations. Shame and rejection sensitivity are common and can lead people to avoid appointments, disengage from care or conceal difficulties. By acknowledging that difficult days are expected, clinicians can create a more compassionate and effective framework for self-management.

Conclusion

Neurodivergence is an under-recognised but clinically important factor in diabetes care. Many

of the challenges healthcare professionals encounter, including missed appointments, difficulties implementing treatment plans, variable glucose management and resistance to dietary change, may be better understood through a neurodivergent lens.

Returning to Sarah, she has recently been diagnosed with ADHD. Once her difficulties were understood, the focus of her care changed. Instead of repeating education, her team explored the barriers she faced and introduced practical adaptations, such as reminders, habit stacking, written information and a plan for more difficult days. Appointments became more collaborative and expectations more realistic. This adapted approach reduced shame for Sarah and supported her to start making positive changes to her diabetes management. ■

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