



Children and Young People's National Diabetes Network

Annual Psychology Conference 2025

Poster Pack

Posters with recorded Presentations – please use the links below to view

CREATING A RESOURCE TO ENABLE FAMILIES AND TEAMS TO SUPPORT CHILDREN AND YOUNG PEOPLE WITH TYPE 1 DIABETES AND SENSORY SENSITIVITIES
Phoebe Blackman and Dr Cheryl Hunter
University Hospitals Plymouth NHS Trust

RATIONALE FOR RESOURCE
In our paediatric psychology service, a significant proportion of referrals are for:
• Challenges with insulin regimes, e.g. struggling to do injections oneself, struggling with sensor or pump changes
Many of these CYP seem to be neurodivergent or have specific sensory sensitivities (e.g. heightened responses to pain, sound, touch, etc)

REFERRALS
Out of the last 50 referrals to the service:
• 15 linked to struggling with diabetes management which was at least partially related to differences in sensory processing
• For most (7) of these CYP, exploring and helping them and others understand their neurodivergence has been a big part of the work

DEVELOPMENT PROCESS
1. Setting the goal
2. Research gathering
3. Shared research papers about diabetes and neurodivergence
4. Shared diabetes challenges and advice resources
5. Shared research
6. Shared research
7. Shared research
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17. Shared research
18. Shared research
19. Shared research
20. Shared research

EXAMPLE PAGES

TIPS FOR SUPPORT

FEEDBACK SO FAR
• Shared with Diabetes MDT
• Shared with Lead of PHWT
• Shared with two families
• Shared with Diabetes and Neurodivergence Resources Group
• Positive feedback so far
• People expressing intent to use
• Used Clinic Passport and Discussion around Sensory Sensitivities for reference a pump start – went really well!

NEXT STEPS
• Further feedback from CYP and families
• Further input from Occupational Therapy and Community Paediatric colleagues
• Diabetes MDT meeting, presenting on neurodivergence and resources
• Continue with Diabetes and Neurodivergence Resources Group
• Developing a Diabetes Passport with Dr Jenny Newman from (ETS) General Paediatrics to share with families (a 'one stop shop' website which will host links to resources/information)

ACKNOWLEDGEMENTS
• Phoebe Blackman, Psychology Student, University of Plymouth (who did the work)
• Our colleagues in Paeds and Community Paediatrics in Plymouth (especially the Diabetes Team, Psychological Health and Wellbeing Team, and Autism/ID Specialists)
• Children, Young People and Families who we have the privilege of working with and learning from
• Dr Glenn Hooper (Manchester University (MUS) FT) for the Clinic Passport
• Work of other Diabetes Psychologists like Dr Ross Stewart and Dr Jacqueline Allan
• Our psychology colleagues in the Diabetes and Neurodivergence Resources Working Group (special mention of Dr Hayley Thompson of Plymouth Health NHS FT – who inspired the formation of the group with her talk at last year's conference)

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Creating a Resource to Enable Families and Teams to Support Children and Young Peoples with Type 1 Diabetes and Sensory Sensitivities

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https://youtu.be/VS_RLcGOYbk

Neurodiversity & Diabetes

AISHA TANVEER
SUPERVISORS: DR SAREETA
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SYSTEMATIC
LITERATURE REVIEW

Managing T1D in Children with Comorbid ADHD or ASD

BACKGROUND



- Type 1 Diabetes requires complex daily self-management that can be emotionally and physically demanding.
- Recent literature shows a growing prevalence of neurodevelopmental disorders, especially Autism Spectrum Disorder (ASD) and Attention-Deficit Hyperactivity Disorder (ADHD), among individuals with T1D.
- These comorbidities can interfere with diabetes self-care due to challenges in attention regulation, executive function, and sensory sensitivity.
- This review explored how co-occurring ASD/ADHD impacts treatment adherence and diabetes outcomes in paediatric T1D populations.

METHODOLOGY

Databases Searched:
MEDLINE, PubMed, Web of Science

Search Terms:
("Type 1 Diabetes" OR "T1D") AND ("self-management" OR "adherence" OR "glycemic control") AND ("ASD" OR "Autism") AND ("ADHD")
13 studies were included (observational, cross-sectional, longitudinal).

Inclusion Criteria:

- Participants with both T1D and ASD or ADHD
- Focus on treatment adherence, glycemic control (HbA1c), and self-management behaviours
- Empirical studies with quantitative or qualitative data

Exclusion Criteria:

- Studies on risk only (not outcomes)
- Gestational/Type 2 diabetes
- Case studies or anecdotal reports

Narrative synthesis

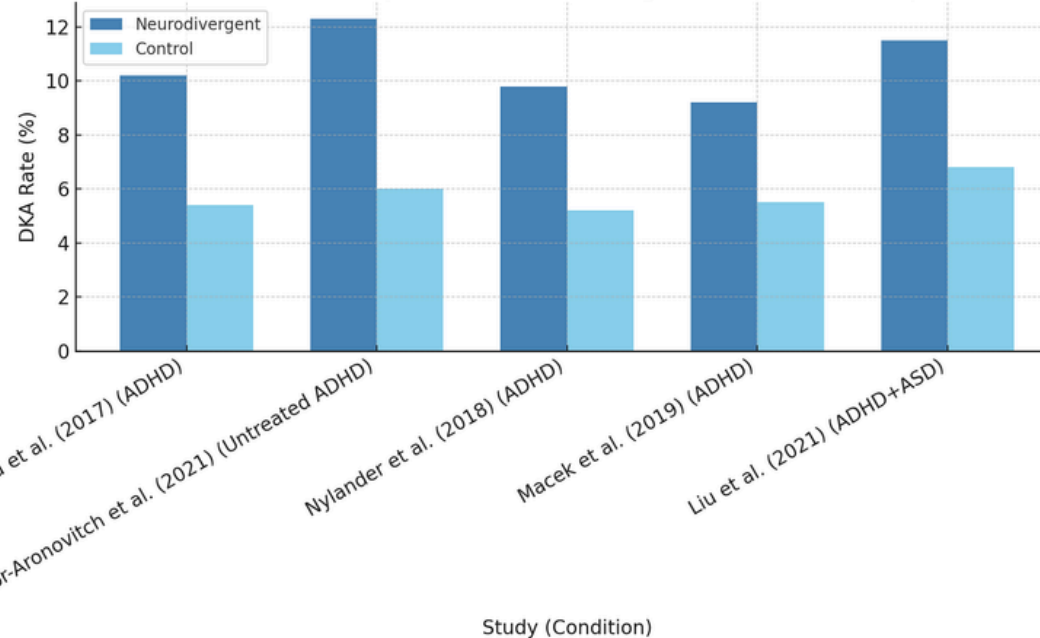
Due to the heterogeneity of studies, data could not be statistically pooled, so a narrative synthesis was used to identify consistent patterns and explore contextual insights as well as variability in outcomes.

KEY FINDINGS

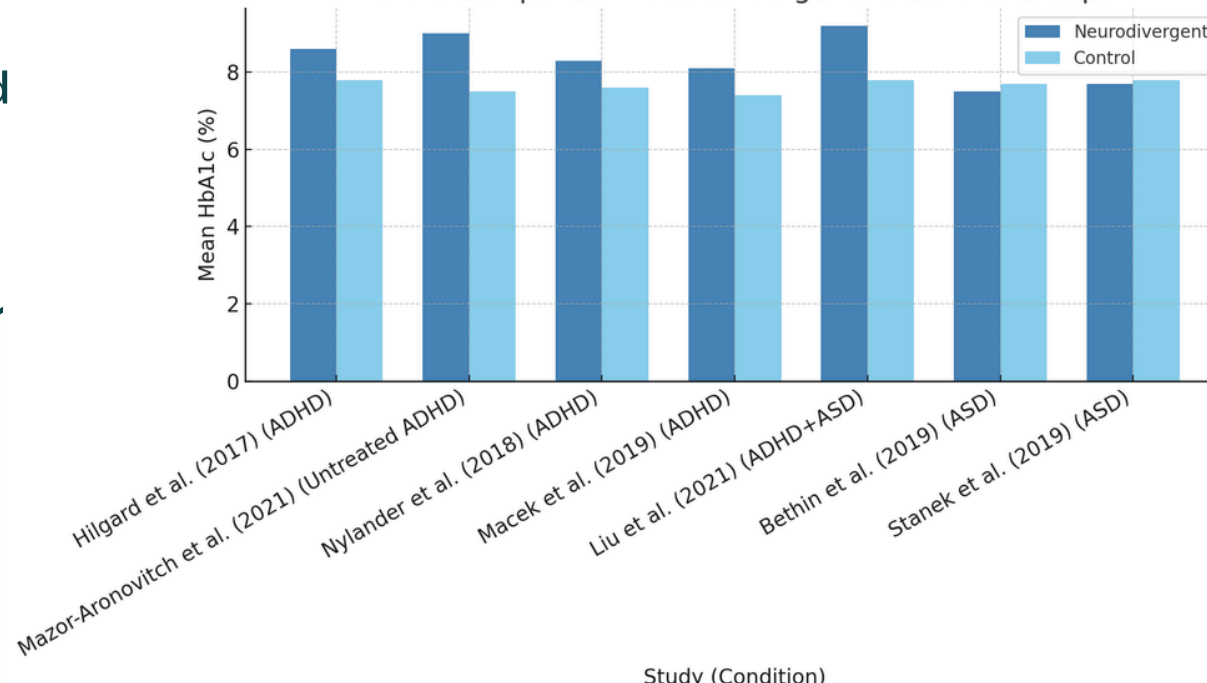
From 13 Key Studies:

- ADHD is consistently linked to:
- Higher HbA1c (worse glycaemic control)
- More hospitalisations & diabetic ketoacidosis (DKA)
- Lower adherence to insulin regimens
- ASD shows a mixed picture:
- Some benefit from routine & structure → better glucose control
- Others struggle with sensory overload → pump/needle resistance
- Combined ADHD + ASD = poorest outcomes

DKA Rate Comparison: Neurodivergent vs Control Groups



HbA1c Comparison: Neurodivergent vs Control Groups



RECOMMENDATIONS

- Neurodiversity-informed care:
 - Tailored diabetes education
 - Sensory-friendly tools & routines
 - Behavioural support
 - Encouraging peer support
- Integrated, caregiver-inclusive models
- More training for clinicians in person-centred, adaptive strategies

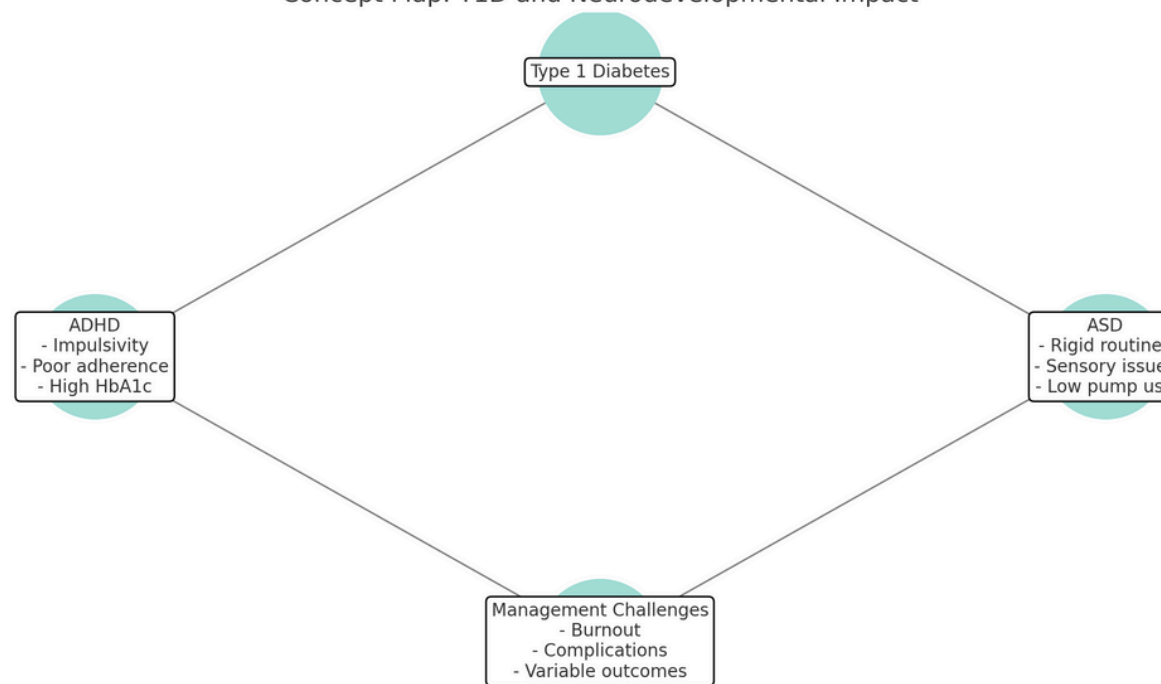
CONCLUSION

Neurodevelopmental disorders significantly affect diabetes self-management in children with T1D. ADHD often leads to poor glycemic control due to impulsivity and executive dysfunction. ASD presents both barriers (sensory challenges) and strengths (routine adherence). However, current diabetes interventions rarely accommodate these cognitive and behavioural differences. Future research must prioritise neurodiversity-informed diabetes care to improve outcomes and quality of life for these young patients.

Research Gaps

- Lack of longitudinal studies
- Underrepresentation of females
- Limited global diversity in current evidence

Concept Map: T1D and Neurodevelopmental Impact



WARWICK
THE UNIVERSITY OF WARWICK

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Background

Type 2 diabetes (TD2) in children and young people (CYP) is known to be a more aggressive form of diabetes and increases the risk of developing cardiovascular disease (Diabetes UK 2022; Kaptoge et al., 2023). There was a 54% increase in T2D diagnoses in CYP between 2017-2022 (Royal College of Paediatric and Child Health; RCPCH, 2024). CYP with T2D are more likely to experience mental health difficulties. Research has highlighted the need for improving care provision as this cohort present with a unique set of needs which would benefit from an MDT approach (Eitel et al., 2023; 2024; RCPCH, 2023). The Paediatric Diabetes Clinical Psychology service in CHFT piloted a new MDT clinic in August 2023 where CYP and their families are seen by a doctor, nurse specialists, a dietician and a clinical psychologist every two months as a routine appointment. The service implemented TD2 specific training for the MDT to support with knowledge and confidence working with CYP & their families.

Aims

To explore the experiences of CYP and their families of the new paediatric T2D MDT clinic, which included their thoughts on psychology input.

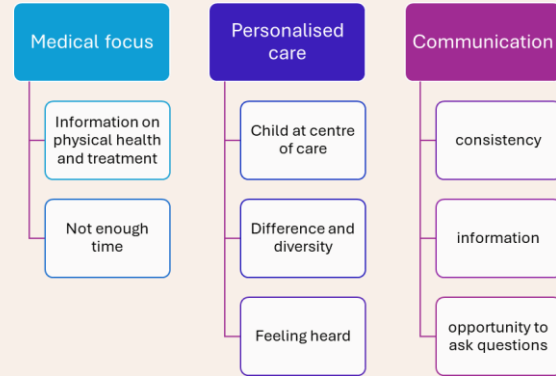
To evaluate whether training in key areas related to CYP with T2D improved clinician confidence when working with this patient group.

Method

All CYP and one adult from their families were contacted by letter and telephone telling them about the study and asking whether they would like to take part. Three out of six families contacted agreed (two pairs and one CYP). Semi structured interviews were carried out. Recordings were analysed using rapid qualitative analysis.

All MDT staff (N=11) completed questionnaires rating their confidence levels in different areas relating to T2D care and management. These were collected across four time points over one year; pre pilot, pre training session, post training session and post pilot.

Results of Rapid Qualitative Analysis



"... we had the starting point of what we needed to do but then after the appointment, I thought.. okay.. what do I do now.."

"...They [all MDT staff] always ask me how I am doing with this or that and remember the important things about me..."

"... not just diabetes but full wellbeing check [psychology]"

"...Important holidays that might come up... how I can still enjoy festivals and eat the foods from my culture..."

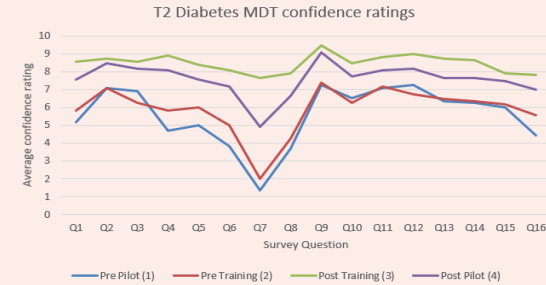
"... it is nice seeing them all bit by bit on the same day... they don't rush me and listen..."

"... if like one of them, say the dietitian doesn't have the answer, I can go ask psychology or the doctor... do you know what I mean, they might know..."

"... Would be helpful to have more contact if things are a bit difficult to find out what we can do..."

"... now I feel like I know more about looking after myself because I asked..."

Results of MDT staff confidence



Conclusions and clinical recommendations

- CYP and their families reported a positive experience of the new MDT clinic and preferred this over the previous clinic.
- CYP and their families found the psychology and dietician input helpful, particularly when considering aspects of their identity such as culture, religion and neurodivergence. This was helpful when considering how to implement advice and overall management of TD2.
- Some families expressed interest for more appointments.
- MDT staff confidence levels increased throughout the pilot, with the highest seen after attending T2D specific training. MDT staff had the lowest confidence when focusing on new medications such as GLP-1 agonists (Mounjaro, Ozempic).
- It is recommended that CYP and families with T2D have regular access to MDT clinics including clinical psychology input.
- Individual needs such as culture and neurodiversity should be embedded within the treatment and management of T2D for CYP.
- CYP and families could be offered telephone input in between appointments, if needed.
- MDT staff working in Paediatric T2D should have access to training on a yearly basis with some further training on certain areas such as medication.



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Developing a newly diagnosed telephone call pathway in a Paediatric diabetes NHS service.

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Introduction

- Embedding psychology in multidisciplinary teams helps identify and address emotional challenges early, supporting better diabetes management and wellbeing (NICE, 2015, NHS England, 2019).
- Managing type 1 early on can be highly stressful for families due to unpredictable insulin needs, hypoglycemia risks, challenging mealtime behaviours, and nighttime monitoring (Hilliard et al., 2017).
- A systematic review by DeCosta et al (2020) found that initial emotional distress in children often improves, but ongoing psychological challenges persist. The review highlighted five key support needs: time to adjust, strong relationships, age-appropriate involvement in care, opportunities to engage in normal activities, and support that doesn't make them feel different.

Aims

Short-term:	Long-term:
<ul style="list-style-type: none"> • Reduce distress. • Support adjustment. • Build engagement. 	<ul style="list-style-type: none"> • Identify at-risk families. • Enhance family functioning. • Integrated care and awareness of Psychology.

Intervention

- 30-45 minute telephone call.
- Open ended questions about: Adjustment to diagnosis, Experiences at school, Mood and overall wellbeing, Parental adjustment and/or mental health.
- Psychoeducation.
- Signposting:
 - DigiBete App
 - Tellmi



Demographics

26 young people diagnosed between 01/11/2024 and 30/05/2025

- Three families did not attend their call.
- Three families cancelled their call as it was felt to be not required.
- Two families were/will be contacted by a qualified clinical Psychologist.
- One family were seen whilst they were in clinic.

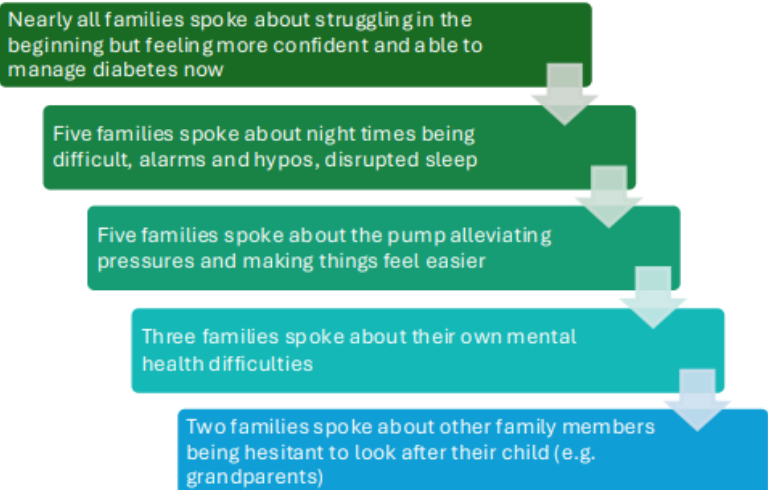
In total 17 calls have been taken place

- Aged between 2 and 16.
- Six were girls, eleven were boys.
- Time since diagnosis ranged from 10 weeks to 39 weeks.
- One young person was referred for well-being clinic review.
- One young person was referred for an initial assessment with paediatric psychology (needle phobia).

Post-call

- Families receive a letter summarising the call.
- Information provided on adjustment period using Kubler-Ross change model
- Paediatric Psychology, Coping Skills and Adjustment to Diagnosis leaflets accompany the letter.
- Option for Wellbeing Clinic for young people who are experiencing difficulties/or referral for initial assessment with paediatric psychology.

Themes



Feedback

- Three families have provided feedback post newly diagnosed call.
- The time of call ranged from 3 to 6 months post-diagnosis.
- Only one family were aware of Psychology being a part of the MDT and being able to access psychology support.

One family shared:

"Reinforced and recognised that the feelings of sadness/grief that we were feeling are normal - helped us talk through how to deal with these feelings in our child"

Additionally, the specialist nurses and consultants have expressed that their families have found the calls helpful to normalise adjustment to diagnosis.



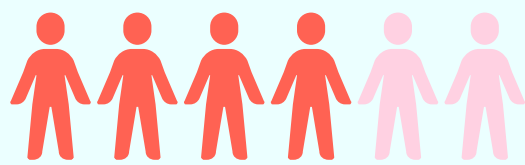
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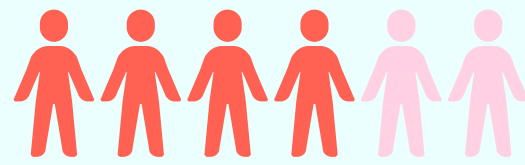


Description of the group:

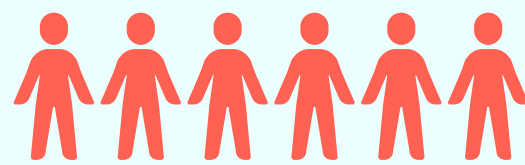
- Seven young people aged between 13 and 16 years old attended a 4-week ACT diabetes distress group.
- Data was obtained from 6 young people.
- Based on Acceptance and Commitment Therapy (ACT)



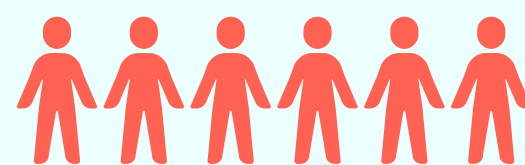
Four people said the group helped their ability to manage their diabetes "A lot"



Four people said the group had helped their family relationships



All six people said the group helped reduce how much they worry about their diabetes



All six people said the group had helped how they felt about their diabetes

What did you find most useful about the ACT group?

"Ways to cope and people to reach out to"

"Not being alone and making new friends"

"How much motivation it has gave me! And people struggle as well with it and people relate to it"

"The tasks we had to give ourselves each week, they were exhilarating to keep up with, but fun to do in hindsight"

"Others have the same feelings as me"

"It has helped how I feel about diabetes and that I don't have to not do things I just have to learn to do them with diabetes."



What one main thing have you learnt from attending the group?

"I'm not the only one"

"Okay not to be perfect"

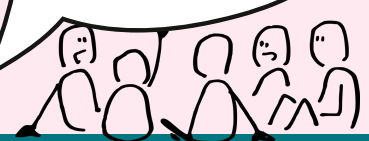
"Small steps are better than nothing"

"It doesn't stop you from doing things and there are many ways to manage it."

"Making new friends and ideas"

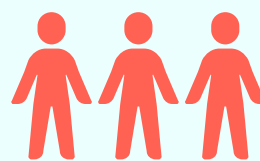
"People relate to me"

"That's it's ok for it to be hard"



Outcome measures

PAID (Problem Areas in Diabetes)
Higher scores indicate diabetes distress.



All people who were experiencing diabetes related distress before the group had a decrease in distress (PAID score)

CompACT (Psychological Flexibility)
Higher scores indicate increased psychological flexibility, which is associated with higher quality of life and greater emotional wellbeing*.

3

3 out of 6 YP had an increase in psychological flexibility score

HbA1c

6 out of 7 YP had a decrease in their actual or predicted HbA1C (mean decrease 13.5m/mol)



Time in Range

5 out of 6 YP had an increase in their Time in Range (mean increase 13.8m/mol)

5

But only 2 had sustained the improvement in TiR at follow-up

What would make the burnout group better?

"It's the best it can be already"

"Not much, maybe a bit shorter, but a part from that, nothing much"

Nothing 😊

"If we could get up more and do more activities instead of writing more (I'm a visual learner)"



THE LIVED EXPERIENCE OF TRANSITIONING TO UNIVERSITY WITH TYPE 1 DIABETES

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AFFILIATIONS



INTRODUCTION

UK students with Type 1 Diabetes Mellitus (T1DM) often experience poorer health outcomes after moving away for university. While Canadian research highlights systemic barriers during this transition, such as reduced support from healthcare services and universities, no qualitative studies have explored whether UK students face similar challenges. This study addresses this gap by examining the lived experiences of UK students with T1DM within the context of the NHS and UK higher education.

AIMS

1. To explore the lived experiences of UK students with T1DM during the transition to university.
2. To identify the types of support students feel they need during this transition.

METHODOLOGY

- 7 current/former undergraduate students with T1DM were recruited from 4 UK universities via participant pools and social media.
- Semi-structured interviews were conducted over Zoom.
- Explored experiences of: healthcare, lifestyle, support & diabetes management during university transition.
- Interviews were transcribed and analysed using reflexive thematic analysis.

RESULTS

Three superordinate themes were developed: Management, Lifestyle and Support.



CONCLUSION

This study examines the challenges faced by UK university students with Type 1 Diabetes Mellitus (T1DM) during their transition, including decreased support and lifestyle changes affecting diabetes management. Suggested solutions include:

- TYA services to establish peer support groups for self-management.
- Psychologists to collaborate with university staff for better health support.
- Healthcare teams to offer workshops on lifestyle planning and remote consultations for accessibility.

Further research is required to assess the effectiveness of these strategies.

