30TH PSAD

Annual Scientific Meeting

Scientific and Social Program

17th - 19th February 2026

Waurn Ponds Estate
Geelong, Australia

The PsychoSocial Aspects of Diabetes (PSAD) Study Group

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Welcome from the Chair

It is an absolute joy to welcome you to the 30th Annual Scientific Meeting of the PsychoSocial Aspects of Diabetes Study Group – this year, held at the Waurn Ponds Estate, on the edge of Deakin University's beautiful Waurn Ponds campus in Geelong, Victoria, Australia.

It is wonderful to celebrate the 30th annual scientific meeting of the PSAD Study Group. I am privileged to host this anniversary meeting, both as Chair of the PSAD Study Group and in my capacity as local host, with my brilliant colleagues at the Australian Centre for Behavioural Research in Diabetes, a partnership between Diabetes Victoria and Deakin University. It is also, truly, an honour for us all to be the first group to host the international PSAD Study Group community outside Europe.

For three decades, the PSAD Study Group has brought together researchers, health professionals and people with lived experience of diabetes, as well as industry and other interested parties, to deepen our understanding of the psychosocial and behavioural dimensions of both living with diabetes and of supporting people living with diabetes – whether in the capacity of family/friends, healthcare professionals or the wider community.

This year's meeting marks not only our 30th anniversary but also our largest gathering yet. In 2026, we welcome more than 80 registered attendees, including 34 international delegates. We are proud to offer four travel awards for early and mid-career researchers to join us from overseas, plus three Axel Hirsch travel awards supporting people with lived experience to join us from across Australia.

Over three days of science and social exchange, we'll share new findings across:

- three parallel sessions of completed work
- two parallel sessions of work in progress
- and one parallel session of rapid presentations.

We will debate fresh ideas throughout the program and, in particular, during our spirited 2026 PSAD Mark Peyrot Great Debate. We will celebrate excellence with our 2026 Science Awards for early and mid-career researchers. As usual, a key highlight will be the inspiring Anita Carlson Lecture, delivered this year by the incomparable Renza Scibilia.

In addition, we have a satellite masterclass, two workshops and a symposium to stimulate new ideas ways of thinking and working, from health literacy to diabetes distress, from AI to stem cell therapies.

If that were not enough, we most certainly plan to put the 'social' into 'psychosocial'. We have a fabulous social program with plenty of time built in throughout the long summer days and evenings to connect with colleagues and enjoy a small taste of Australia.

The psychosocial aspects of diabetes care have never been more important or more widely acknowledged than they are now. While our area of work remains one of the most under-resourced in diabetes research and clinical care, this community is bringing about some of the most transformational work in diabetes care. This field has certainly come of age and, together, we are making a difference.

Friends, I cannot wait to see you here in Victoria for our 30th anniversary meeting, to continue pushing the field forward, to support those living with or affected by diabetes, and to celebrate the collaborations, the mentoring and the friendships that characterise the PSAD Study Group.

Safe travels and warm wishes

Jane

Professor Jane Speight
Chair, PSAD Study Group

About the PSAD Study Group

PSAD
PsychoSocial Aspects of Diabetes

Whether you are new to the PSAD Study Group annual scientific meeting or an ‘old timer’, you are very welcome! We are delighted and honoured that you are joining us.

The PSAD Study Group is a network of 150+ members around the world, extending across Europe, USA, Australia and South America. Our members are united in their common interest in the psychosocial aspects of diabetes, and include researchers from many disciplines, clinicians, and people living with diabetes.

Our mission is to:

- stimulate communication between researchers, people with diabetes, health professionals and policy makers about the psychosocial aspects of diabetes
- promote excellence in the quality of psychosocial research in diabetes
- stimulate dissemination and implementation of effective psychosocial interventions in diabetes care.

We have longstanding relationships with diabetes associations, research centres and industry partners across the globe. In particular, we act as a reference group for the European Association for the Study of Diabetes (EASD) in matters related to the psychological, social and behavioural aspects of (living with) diabetes.

We convene annual scientific meetings, as well as other events and symposia, that are designed to promote the quality and impact of psychosocial research in diabetes.

Please visit our website to find out more: https://www.psadgroup.org/

If you are not already a member, we encourage you to join here: https://www.psadgroup.org/become-a-member/

Local, Scientific and Social Program Organising Committee

On behalf of the membership, the Executive Committee extends sincere thanks to the local, scientific and social program organising committee for their dedicated and thoughtful planning of this year's conference. Your hard work, attention to detail and countless behind-the-scenes efforts are deeply appreciated by us all. We know that our meeting is in safe hands and trust that everyone will have a wonderful experience at the meeting.

If you have any queries, please feel free to ask any of the Committee.

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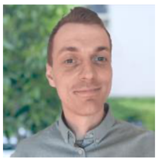

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The 2026 Anita Carlson Lecture

This year's Anita Carlson Lecture will be given by Renza Scibilia.

Renza has chosen the title: Building diabetes care from the ground up.

Renza has lived with type 1 diabetes since 1998. She is a diabetes advocate and activist, passionate about community and lived experience engagement and inclusion.

Renza has worked in diabetes organisations for 25 years. Currently, she is Senior Director of Global Responsibility at Breakthrough T1D, and is an advisor to #dedoc°.

A regular presenter at conferences around the world, Renza speaks about the importance and value of lived experience, effective health communications and how co-design should be a cornerstone of any health service development.

Renza has been involved in numerous research projects, providing lived experience expertise. She chaired the Living with Diabetes Stream at the 2019 International Diabetes Congress (IDF) in Busan and is currently chairing a stream for this year's IDF Western Pacific Region Congress. In 2022, Renza gave the Lived Experience Award Lecture at the IDF Congress in Lisbon. Last year, she was awarded the #dedoc° award which recognises people in the diabetes community who have made an extraordinary contribution to improving the lives of people with diabetes across the globe.

Renza is the author of one of Australia's most widely-read health blogs, "Diabetogenic" (diabetogenic.blog). She is a regular contributor to various health news sites, projects and initiatives around the world.

Anita Carlson PhD was a psychologist and Director of the Diabetes Education and Training Unit, Karolinska Institute, Stockholm, Sweden. She was an early and enthusiastic member of the PSAD Study Group. She was publishing actively from the late 1980s into the early 2000s, until her untimely death, which was a deep loss to our community.

Anita was a strong proponent of the empowerment philosophy as the basis for programs and resources to support people living with diabetes about how to live well with and manage their condition; as well as the basis for training diabetes health professionals to promote person-centred care. Anita was also a strong promoter of the role of primary care in diabetes care, and for improving the quality of diabetes care.

While the language of her published work may not be the standard we would promote today, Anita's approach lives on in the work of the PSAD Study Group and its members:

- Family characteristics and life events before the onset of autoimmune type 1 diabetes in young adults: a nationwide study. *Diabetes Care,* 2001 Jun; 24(6): 1033-7.
- The empowerment debate – a reply. *Practical Diabetes International*, 2001; 18(5)
- Reducing obstacles to the provision of quality diabetic care. *Psychology Health,* 1991; 5(4): 247-58
- Locally developed plans for quality diabetes care: worker and consumer participation in the public healthcare system. *Health Education Research*, 1990; 5(1), 41-52.
- Beyond CME: diabetes education field-interactive strategies from Sweden. *Diabetes Educator*, 1988 May-Jun; 14(3): 212-7. doi: 10.1177/014572178801400313.
- Evaluation of comprehensive program for diabetes care at primary health-care level. *Diabetes Care*, 1988 Mar;11(3):269-74. doi: 10.2337/diacare.11.3.269.

The 2026 PSAD Axel Hirsch Travel Awards for People with Lived Experience

The Axel Hirsch Travel Awards honour the legacy of Dr Axel Hirsch, who lived with type 1 diabetes, was a pioneering clinical psychologist, and founder of key psychosocial diabetes initiatives in Germany and Europe.

After his own diagnosis of type 1 diabetes, Axel championed "empowerment", ensuring people with diabetes shape their lives and therapies independently, based on personal goals rather than expert dictates. It was largely due to his initiative that a small group of psychologists in Germany met for the first time in 1985 to exchange views on psychological concepts of diabetes.

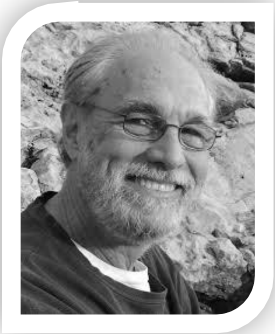
From this, the "German Diabetes and Psychology Working Group" emerged in 1986, and he was its first Chair until 1989. It has evolved since into an official working group of the German Diabetes Society (DDG).

In 1995, Axel was a founding member of the PSAD Study Group.

Above all, the term "empowerment" is associated with Axel Hirsch – the concern that people with diabetes shape their lives and their diabetes self-care independently according to their own goals, values and wishes. What is now standard and obvious to many of us was not a matter of course at that time.

The awards offered in 2026 fund travel for three individuals with lived diabetes experience to participate fully in the PSAD meeting, embodying Axel's vision of inclusive voices driving research and care.

The 2026 PSAD Mark Peyrot Great Debate



The Mark Peyrot Great Debate honours the enduring legacy of Dr Mark Peyrot, a pioneering sociologist, and a long-term member and supporter of the PSAD Study Group. Over numerous years, Mark was one of the few US researchers attending what was, at that time, a primarily European meeting. He was a professor of sociology at Loyola College and research faculty at Johns Hopkins School of Medicine. He authored numerous influential studies on attitudes, self-management behaviours, and barriers to diabetes care—most notably co-leading the landmark Diabetes Attitudes, Wishes, and Needs (DAWN) studies that highlighted emotional distress and the need for person-centred care.

Mark's scholarly insights advanced behavioural interventions, interdisciplinary collaboration, and global benchmarks for diabetes psychosocial support and influenced guidelines and practice across the world. Among his many contributions, those of us who knew Mark recall his enduring ability to debate fiercely at length – without such debate being a barrier to friendship and collaborations. By naming the Great Debate for Mark, and establishing it as an annual 'event', we celebrate Mark's commitment to community and mentorship and, above all, the ability to critique while maintaining respect, dignity, humour and friendship across the miles.

Before you travel

Local tip	***About the Waurn Ponds Estate*** *The Waurn Ponds Estate is a dedicated conference facility on the edge of the Deakin University campus at Waurn Ponds, Geelong. It is a beautiful, tranquil and somewhat remote setting. There is plenty of opportunity for those who enjoy outdoor pursuits.* *It is approximately 1 hour 15 (by car or train) from Melbourne and about the same (by car) to Melbourne's international airport at Tullamarine.* *It is 10 minutes (by car) to the Waurn Ponds shopping centre or 5 minutes (by car) to Epworth Hospital, where there is a pharmacy and an emergency department. Alternatively, the shopping centre is a 35-45 minute walk through the campus and then along a main road.* *Therefore, it is advisable to bring any supplies with you that you may need during your stay, as it may not be convenient for you to get to a local shop. The ACBRD team will have at least one car available for anyone who needs to make a quick trip to the supermarket, pharmacy or similar.* Also, check out the **Essential Information** guide, which accompanies this program.

Pre-conference Program

Pre-conference: Monday 16th February 2026	
Location	*Melbourne*
18:00	***OPTIONAL*** pre-conference networking dinners *(at own cost)* **PSAD Early Career Researchers (ECR) dinner** – open to PSAD ECR members **PSAD 'Old timers' dinner** – open to anyone who is not an ECR *NB. If you have selected to join a dinner, you will receive details nearer the time via email. If you have not and would like to join us, please email info@acbrd.org.au*

Pre-conference: Tuesday 17th February 2026	
Local tip	*For the coffee lovers: 'Assembly' (62 Pelham Street, Carlton) serves great coffee; it is less than a 5-minute walk from Diabetes Victoria's office.*
Location	*ACBRD, Diabetes Victoria, 15-31 Pelham Street, Carlton, Melbourne*
09:00 – 09:15	*Arrive for masterclass* *Collect Myki tickets for travel later via V/Line train to Waurn Ponds*
09:15 – 09:20	**Welcome to The Australian Centre for Behavioural Research in Diabetes (ACBRD) and Diabetes Victoria** Elizabeth Holmes-Truscott, Kristi Milley
09:20 – 11:00	***SATELLITE* Masterclass** *(for those who have pre-registered – now fully booked)* **Organisational Health Literacy and Diabetes Prevention and Care** Facilitators: Helle Terkildsen Maindal and Bodil Rasmussen
11.00 – 11:30	Morning Tea
11:30 – 14:00	*Travel to Waurn Ponds Estate, Geelong:* A group will be travelling to Waurn Ponds Estate from Diabetes Victoria via public transport. The journey by V/Line train from Southern Cross to Waurn Ponds is around 1 hour 15 minutes. A coach will meet the group at Waurn Ponds train station and take us to the Waurn Ponds Estate (around 10 minutes drive). See essentials document for further detail. We will also share the information again at Diabetes Victoria.

Main Program

With sincere thanks to our generous sponsor:

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Day 1: Tuesday 17th February 2026		
Location	*Waurn Ponds Estate, Nicol Drive South, Waurn Ponds, Geelong, Victoria*	
15:30 – 16:30	**Coming Together** – Afternoon Tea & Registration	*Lounge/Torquay Room*
16.30 – 18:30	**Opening Session**	*Torquay Room*
16:30	**Welcome to Country:** a Wadawurrung traditional ceremony, held in the grounds of the Waurn Ponds Estate	*Outdoors*
17:00	**Welcome to the 30th PSAD Study Group Annual Scientific Meeting** – Professor Jane Speight, Chair: PSAD Study Group **Welcome to Geelong, Australia** – Dr Eloise Litterbach, Chair: the Local Organising and Conference Committee – Associate Professor Ralph Audehm, Chair Elect: Primary Care Diabetes Society of Australia	
17:15	**The 2026 PSAD Travel Awards for Early Career Researchers** – Presented by: Mandy Jansen and Eloise Litterbach **The 2026 PSAD Axel Hirsch Travel Awards for People with Lived Experience** – Presented by: Meaghan Read	
17:30	**The 2026 Anita Carlson Lecture:** Building diabetes care from the ground up *Speaker:* Renza Scibilia *Chair:* Jane Speight	
18:30 – 19:00	Free time / Pre-dinner drinks	
19:00 – 21:00	**Dinner** – Waurn Ponds Estate *(included in registration fee)*	*Barrabool Dining Room*
21:00 – 22:30	**Bar open** – drinks available at own expense	*Lounge*

Abbreviations used in this program
GDM: gestational diabetes
T1D: type 1 diabetes
T2D: type 2 diabetes

All sessions will be held in either the Torquay Room or the Anglesea Room at the Waurn Ponds Estate.

Day 2: Wednesday 17th February 2026		
Location	*Torquay Room*	*Anglesea Room*
08:30 – 10:00	**Session 1.1 *Completed Work*** Psychological wellbeing **Chairs: Frans Pouwer, Jo Jordan**	**Session 1.2 *Completed Work*** Diabetes programs and interventions **Chairs: Norbert Hermanns, Lauren Cusack**
08:30	Are age and gender associated with diabetes and weight stigmas among adults with T2D? Results from the second Diabetes MILES – Australia (MILES-2) Study – Sarah Manallack	Co-designing a digital mental health intervention for individuals with diabetes: the MyDiaMind experience – Hamimatunnisa Johar
08:45	Loneliness in diabetes: How prevalent is it and what factors determine it? – Anggi Lukman Wicaksana	“Not a fear, just an occurrence now”: Qualitative feedback from adults with T1D about an online, self-guided, psycho-educational program for adults with T1D: An intervention mapping approach – Alison Robinson
09:00	Hypoglycemia and psychological health in people with T2D: results from the Trøndelag Health Study – Hilde Kristin Refvik Riise	Developing HypoPAST (Hypoglycaemia Prevention, Awareness of Symptoms and treatment), a fully online, self-guided psycho-educational program for adults with T1D: An intervention mapping approach – Jennifer Halliday
09:15	Diabetes distress and depression are common in people with established diabetes-related foot disease and associated with autonomic neuropathy symptoms – Jessica Marathe	Parenting interventions for parents of children with T1D: a systemic review. – Mandy Jansen
09:30	Mental health benefits of CamAPS Fx Based Ahcl for people with T1D, glucose levels outside target range and psychological disorders: results from the Hi-Loop Study – Katarzyna Cyranka	A mixed-methods process evaluation of therapy delivery in a novel cognitive behavioural therapy intervention for T1D and disordered eating: Safe management of people with T1D and Eating Disorders Study (STEADY) – Natalie Zaremba
09:45	[No presentation]	Impact and experiences of parents related to the LosVast parent program in pediatric T1D – a realist-inspired process evaluation – Mandy Jansen
10:00 – 10:45	Morning Tea	*Lounge*

Day 2: Wednesday 18th February 2026		
Location	*Torquay Room*	*Anglesea Room*
10:45 – 12:00	**Session 2.1 *Work in Progress*** Populations experiencing socioeconomic or social vulnerability **Chairs: Jackie Sturt, Ashley Ng**	**Session 2.2 *Work in Progress*** Mental health **Chairs: Mia Majstorovic, Anna Boggiss**
10:45	Co-designing a person-centered tool to support young adults with T1D bridging daily life and clinical encounters – Anka van Gastel	Routine psychosocial monitoring for youth living with T1D and their caregivers within Australia: associations with demographic and clinical variables – Anna Boggiss
11:00	Addressing unmet needs of people with diabetes through digital social prescribing – Chris Lynch	Precision subclassification of mental health in diabetes: Digital TWINs for Precision Mental HEAlth to track subgroups (TwinPeaks) – Norbert Hermanns
11:15	Evaluation of the Young Adults with Diabetes Service (YADS) at Monash Health, Victoria, Australia – Rebecca Goldstein	Exploring the impact of psychology on diabetes distress in young adults with T1D – Emily Hibbert
11:30	Diabetes Paediatric to Adult Transition in Healthcare (Diabetes PATH) - Defining success and best practice paediatric to adult diabetes care transition – Ashley Ng	METRIC trial: METfoRmin In psyChosis (METRIC) for weight gain prevention – Richard Holt
11:45	A pitch for a large online study that targets psychosocial barriers and unmet care needs among people with diabetes who live in low- and middle-income countries around the globe – Frans Pouwer	[no presentation]
12:00 – 13:00	Lunch	*Lounge*

Day 2: Wednesday 18th February 2026		
Location	*Torquay Room*	*Anglesea Room*
13:00 – 14:15	**Session 3.1 *Work in Progress*** Factors affecting diabetes risk and management **Chairs: Eloise Litterbach, Anka van Gastel**	**Session 3.2 *Work in Progress*** Qualitative and co-design methods **Chairs: Alison Robinson, Bryan Cleal**
13:00	Starting diabetes care fresh – Samereh Abdoli	Understanding the lived experiences of mothers caring for children with T1D in Jordan – Riwa Kahale
13:15	The dual stigma of high weight and T2D: insights from a Danish national survey – Sabina Wagner	The quest continues: the qualitative experiences of early-stage T1D project – Mia Majstorovic
13:30	What does "stigma-free" diabetes care mean? A multinational qualitative exploration towards addressing T2D diabetes stigma in healthcare settings – Emmanuel Ekpor	How are pros and cons of diabetes devices presented online? A qualitative study of website and social media contributions by people with T1D – Maaike Horsselenberg
13:45	Supporting T2D and cardiovascular disease risk-reduction for women and their children following gestational diabetes mellitus: a qualitative study of health promotion professionals – Eloise Litterbach	Co-creation and development of a stepped-care model for psychological support for people with T1D – Frans Pouwer
14:00	Anxiety and depression among people with diabetes after COVID-19 hospitalization: A prospective cohort study – Dina Renathe Løland	The role of Resilience-Based Clinical Supervision (RBCS) to enhance the wellbeing of diabetes specialist nurses – Sue Hill
14:15 – 15:00	Afternoon tea	*Lounge*

Day 2: Wednesday 18th February 2026		
Location	*Torquay Room*	*Anglesea Room*
15:00 – 16:00	**Session 4.1** ***Rapid presentations*** Diabetes distress and caring for people with diabetes **Chairs: Anna Serlachius, Meaghan Read**	**Session 4.2** ***Rapid presentations*** Measurement, management and medication taking **Chairs: Belinda Moore, Tim Skinner**
15:00	Ecological momentary assessment of consecutive daily diabetes distress: when a single day of diabetes distress matters – Laura Klinker	Associations between illness belief dimensions, illness clusters, health and well-being indicators among adults with T2D: findings from the PREDICT cohort study – Timothy Skinner
15:06	A new approach in measuring meaningful diabetes distress: the Diabetes Distress Diagnostic Checklist (DDCL) – Laura Klinker	Depression and Diabetes Distress are main drivers of Health Related Quality of life – Norbert Hermanns
15:12	A rapid realist review of group-based interventions to reduce diabetes distress in adults with T1D – Jackie Sturt	Community co-design: exploring the barriers to T2D medication use, preferred resource types and delivery – Stephanie Lamev
15:18	Investigating the relationship between diabetes distress and diabetes-related ketoacidosis in young adults with T1D – Emily Hibbert	Guided self-determination: a co-designed self-management program for Aboriginal and Torres Strait Islander people living with T2D – Bodil Rasmussen, Tim Druce
15:24	The impact on families requiring a mobile phone as a medical device in the management of T1D – Kristy Browne-Cooper	Diabetes distress occurs frequently in people with diabetes-related foot ulcers and is associated with higher glycemic outcomes – Jessica A Marathe
15:30	Talking about T1D: Understanding adolescents' needs to have confident conversations – Keely Bebbington	Food insecurity and continuous glucose monitoring indices in Indigenous Australians – Chinmay Marathe
15:36	Diabetes distress in adults with T1D and their relatives: personality correlates, chronic complications, and a theoretical link to complex PTSD – Judita Konečná	Modified Distress Scale (mDDS): A novel instrument for assessing emotional distress and treatment compliance in diabetes mellitus - a cross-sectional multicenter study from India – Firdous Shaikh
15:42	Considering communities of care when designing care plans: a secondary analysis of diabetes encounters in the US and the Netherlands – Anka van Gastel	Psychosocial and behavioural outcomes of the SIHAT telehealth pilot program for people with T2D in Malaysia – Jessica Watterson
15:48	What aspects of Enhanced Usual Care for reducing diabetes distress work, for whom, in what circumstances and why? A rapid realist review – Jackie Sturt	[no presentation]

Day 2: Wednesday 18th February 2026		
16:00	Free time	
18:15	Social Program [free bus will depart promptly at 18:15; meet at entrance at 18:00 to begin boarding bus]	*Transport*
19:00 – 22:00	Dinner *(included in registration fee)*	*Jack Rabbit Winery*
22:00	Travel back to Waurn Ponds Estate [free bus will depart promptly at 22:00 to return arrive around 22:45]	*Transport*

Day 3: Thursday 19th February 2026		
Location	*Torquay Room*	
08:00 – 09:30	***SATELLITE Workshop:*** Implementation of the EASD clinical guideline on the assessment and management of diabetes distress among adults with T1D and T2D **Facilitators:** Jackie Sturt, Karin Kanc, Richard Holt, Norbert Hermanns, Jane Speight	
09:30 – 10:00	Morning tea	
Location	*Torquay Room*	*Anglesea Room*
10:00 – 11:30	**Session 5.1 *Completed Work*** Diabetes and socioeconomic challenges **Chairs: Hilde Rise, Mandy Jansen**	**Session 5.2 *Completed Work*** New perspectives on living with and assessing diabetes outcomes **Chairs: Natalie Zaremba, Richard Holt**
10:00	The association of socioeconomic status and diabetes-related neuropathy in South Asians with T2D – Chinmay Marathe	Person-Reported Outcome Measures (PROMs) used in clinical trials among youth living with T1D: a mapping review of constructs – Anna Boggiss
10:15	Food insecurity and diabetes distress in South Asia: exploring a causal relationship by g-computation analysis – Chinmay Marathe	Danish validation and cultural adaptation of the Diabetes Distress Assessment System for people with T1D and T2D – Bryan Cleal
10:30	Co-existence of food insecurity and abdominal obesity in people with T2D from South Asia is associated with glucose levels outside of target range. – Jessica Marathe	Picture living with diabetes: A photovoice study of young adults' efforts in making diabetes care fit into their lives – Anka van Gastel
10:45	Peripheral neuropathy and neuropathic pain are worse and are associated with food insecurity and low household dietary diversity in people with South Asians with T2D – Chinmay Marathe	Living with diabetes as loss: a grief-informed perspective on psychosocial care – Bryan Cleal
11:00	Exploring the lived experiences and perceptions of social support in diabetes self-management in Ethiopia: perspectives of patients, family, and friends – Israel Bekele Molla	[no presentation]
11:15 – 11:30	Comfort break	
11:30 – 12:30	**PSAD Business Meeting** – ***Members only*** – *incl. announcement of the outcome of the 2026 PSAD Executive Committee Elections for Chair Elect and Deputy Chair*	
12.30 – 13:30	Lunch	

Day 3: Thursday 19th February 2026		
Location	*Torquay Room*	*Anglesea Room*
13:30 – 14:30	**Session 6.1 *Completed Work*** Diabetes during pregnancy **Chairs: Elizabeth Holmes-Truscott, Laura Klinker**	[no presentations]
13:30	Social needs and stress in pregnant women with diabetes in New Zealand: a cross-sectional study – Anna Serlachius	-
13:45	The transition from pre- to early pregnancy in women with T2D – a qualitative study – Line Elberg Lorenzen	-
14:00	From illness perceptions to glycemic management: the role of diabetes distress in gestational diabetes – Ana Munda	-
14:15 – 14:30	Comfort break	
Location	*Torquay Room*	
14:30	**The 2026 PSAD Mark Peyrot Great Debate:** We need more randomised controlled trials to inform psychological care **Chair: Tim Skinner**	
15:30 – 16:00	Afternoon tea	
Location	*Torquay Room*	
16:00	**The 2026 PSAD Science Awards:** *Winners to be announced* **Chair: Jackie Sturt**	
16:30	**Official close of the 30th PSAD Study Group Annual Scientific Meeting** – Jane Speight	
16:45	Free time	
18:30	***OPTIONAL* Social Program:** [Transport: Ubers / taxis will depart at 18:30; meet at main entrance by 18:15]	
19:00	***OPTIONAL:*** Dinner at Little Creatures Brewery, 221 Swanston Street, Geelong (at own cost)	

Post-conference Program

Post conference: Friday 20th February 2026	
Location	*Torquay Room*
08:30 – 10:30	*(for those who have pre-registered)* ***SATELLITE* Workshop:** Human-centered AI research in rural diabetes care: ethical, psychosocial, and community engagement challenges **Facilitator:** Samereh Abdoli
10:30 – 11:00	Morning Tea
11:00 – 12:30	*(for those who have pre-registered)* ***SATELLITE* Symposium:** Stem-cell treatments in T1D: from perceptions to pursuit and person-reported outcome measures **Co-Chairs:** Richard Holt, Renza Scibilia
12:30 – 13:30	***OPTIONAL:*** Lunch at Waurn Ponds Estate Restaurant (at own cost)
13:45	***OPTIONAL:*** Offsite Excursion [details to be shared via email with those who pre-registered]

Thank you for making the 30th PSAD Annual Scientific Meeting such an engaging and memorable event.

We hope that our interstate or international visitors enjoy the rest of your stay here in Melbourne/Australia.

We wish you safe onward travels.

We look forward to seeing you next year – save the date!

31st PSAD Annual Scientific Meeting
Krakow, Poland
21-23 April 2027

Workshops, Masterclasses & Symposia

Day: Tuesday 17th February: 09:00 – 10:45

Location: ACBRD, Diabetes Victoria, 15-31 Pelham St, Carlton, Melbourne

Masterclass: Health literacy and diabetes prevention and care

Instructors

Professor Helle Terkildsen Maindal, Center Director, Research Center for Health Literacy and Equity (REACH) and Section Head of Applied Public Health Research, Aarhus University, Denmark, and Honorary Professor at Institute of Health Transformation, Deakin University, Australia (International expert in health literacy and prevention of diabetes)

Professor Bodil Rasmussen, School of Nursing and Midwifery, Melbourne Burwood Campus, Deakin University, Australia (International expert in Diabetes Care)

Learning Objectives

After attending this masterclass, participants will be able to:

- Apply relevant theory and evidence about organisational health literacy to the learning and teaching of diabetes in research, educational, and clinical settings.
- Practice using different techniques to promote the understanding of organisational health literacy and reflective practice of health literacy responsiveness.

Structured session outline

The health environment often does not meet the needs of many people with diabetes. In many countries, the population struggles to fully understand and comprehend health information as well as access and use available health services and resources. This affects a person’s ability to engage and interact with healthcare providers and navigate the healthcare system. Health literacy refers to an individual's ability to find, understand, and utilise health information and services to make informed decisions and take appropriate actions for their health and well-being. Health literacy is closely linked to other socio-economic factors, such as education, employment, and ethnicity. It can serve as a lever in addressing the challenge of inequity in diabetes healthcare and in accessing and navigating healthcare services. Health services and local communities can provide valuable assets and strengths that enable health literacy.

The concept of organisational health literacy refers to how well an organisation enables people — whether patients, clients, employees, or partners — to find, understand, appraise, and use health information and services to make informed decisions about their health. It extends the concept of individual health literacy (a person’s skills and knowledge) to the systems and environments in which people interact. In other words, it’s not only about how “health literate” people are, but also about how health-literate the organisation itself is. A health literacy responsive organisation designs information, communication, and services that are easy to access, understand, and navigate. It embeds health literacy principles in policies, leadership, workforce development, and culture, and engages patients, communities, and staff in co-creation and continuous improvement. First and foremost, it actively works to reduce health inequalities by addressing barriers faced by people with limited health literacy.

Day: Thursday 19th February at 08:00 – 09:30

Location: Waurn Ponds Estate, Torquay Room

Workshop: Implementation of the EASD clinical guideline on the assessment and management of diabetes distress among adults with T1D and T2D

Facilitators

Jackie Sturt – Kings College London, UK
Karin Kanc – Jazindiabetes, Private Diabetes Centre, Slovenia
Richard Holt – University of Southampton, UK
Norbert Hermanns – Research Institute of the Diabetes Academy Mergentheim (FIDAM), Germany
Jane Speight – The Australian Centre for Behavioural Research in Diabetes (ACBRD), Diabetes Victoria and Deakin University, Australia

Aims

The workshop aim is to develop and progress aims and objectives to underpin a global implementation strategy around the first five priorities of:

1) Guideline 'adolopment'
2) Fund/grant raising
3) Communications of implementation activities and resources
4) Quality assurance of implementation resources
5) HCP training academy

Session Outline

Time	Session name	Presenter
08:00	What are we implementing and how? (summary of the guidelines & EASD SOPs re adolopment)	Richard Holt
08:10	PSAD member survey findings	Jackie Sturt
08:20	Presentation of the strategy topics 1-5 and create breakout groups	Karin Kanc
08:30	Breakout group discussions and feedback planning	Each group facilitated by one of the five facilitators
09:00	Plenary feedback	Norbert Hermanns
09:20	Next steps for creating the PSAD Special Interest Group on Implementation of the EASD Guideline on Diabetes Distress	Jane Speight

Day: Friday 20th February at 08:30 – 10:30

Location: Waurn Ponds Estate, Torquay Room

Workshop: Human-centered AI research in rural diabetes care: ethical, psychosocial, and community engagement challenges

Facilitator

Samereh Abdoli, PhD, RN, Associate Professor, College of Nursing, University of Tennessee, USA

Aims and Learning Objectives

1. Identify psychosocial and ethical challenges in AI-based diabetes research with rural and underserved populations.
2. Discuss strategies for building trust, participation, and shared ownership in technology-enabled studies.
3. Co-develop principles for ethical, community-engaged, and human-centered AI research design.

Structured Session Outline

Rural diabetes research increasingly integrates artificial intelligence to enhance outreach, education, and self-management. Yet, psychosocial and ethical challenges persist—particularly around autonomy, trust, and cultural fit. Researchers working in underserved settings must navigate power imbalances, technology literacy, and community mistrust while maintaining human connection and co-ownership in data-driven studies.

This interactive workshop invites participants to examine the relational dimensions of conducting AI-enabled research in rural and resource-limited contexts. Drawing on real-world insights from community-engaged studies in Appalachia (Eastern North America), the session will explore how research teams can balance innovation with empathy, equity, and respect for lived experience.

Symposium Friday 20th February at 11:00 – 12:30

Location: Waurn Ponds Estate

Symposium: Stem-cell treatments in T1D: from perceptions to pursuit and person-reported outcome measures

Co-chairs

Richard Holt – Professor of Diabetes and Endocrinology, University of Southampton, UK
Renza Scibilia – Diabetes advocate, Melbourne, Australia

Session Outline

- Understanding how motivations, barriers, and information needs influence participation in stem-cell trials in T1D.
- Understanding how patient priorities identify meaningful outcomes beyond clinical measures and their role in evaluating T1D trials.
- Understanding how patient/person-reported outcome measures (PROMs) are applied in clinical research.

1. **Presentations (90 minutes)**

The unmet needs of advanced diabetes technologies – 10 minutes
Ms Meaghan Read (lived experience panel member)

What influences the pursuit of stem-cell treatments in adults with T1D – 20 minutes
Ananthi Anandhakrishnan[1,2]
[1]King's College London, School of Cardiovascular and Metabolic Medicine and Sciences, London, United Kingdom
[2]Guy's and St Thomas' NHS Foundation Trust, Department of Diabetes and Endocrinology, London, United Kingdom

Adults with T1D defining what matters to them for outcomes of stem-cell treatments – 20 minutes
Jane Speight[3,4]
[3]School of Psychology, Institute for Health Transformation, Deakin University, Geelong, Australia
[4]The Australian Centre for Behavioural Research in Diabetes, Carlton, Australia

Psychosocial perspectives and applying PROMs in current and emerging treatments in T1D – 20 minutes
Giesje Nefs[5,6]
[5]*Tilburg School* of Social and Behavioural Sciences, Department of *Medical* and Clinical Psychology, Netherlands
[6]*Radboud University Medical Centre*, Netherlands

2. **Interactive panel discussion (30 minutes)**

Moderated by session chairs, experts, a lived-experience advocate, and the audience will discuss T1D stem-cell trials, PROMs, and psychosocial outcomes. Interactive polls gather questions, perspectives, and practical challenges, encouraging conversations on how trials and future treatments can align with real-world needs.
Key contacts: Sufyan Hussain sufyan.hussain@kcl.ac.uk; Jane Speight: j.speight@acbrd.org.au

Abstracts

Parallel session 1.1 Completed Works: Psychological wellbeing

1.1.1

Title: Are age and gender associated with diabetes and weight stigmas among adults with T2D? Results from the second Diabetes MILES – Australia (MILES-2) Study.

Authors: Sarah Manallack[1,2,3]; Jane Speight[1,2,3,4]; Deborah Turnbull[5,6]; Francois Pouwer[1,4,7,8]; Elizabeth Holmes-Truscott[1,2,3]

Presenting Author: Sarah Manallack[1,2,3]
Affiliations: [1]School of Psychology, Deakin University; [2]Institute for Health Transformation, Deakin University; [3]The Australian Centre for Behavioural Research in Diabetes; [4]Department of Psychology, University of Southern Denmark; [5]School of Psychology, The University of Adelaide; [6]Freemasons Centre for Male Health and Wellbeing; [7]Steno Diabetes Centre Odense; [8]Faculty of Health and Caring Sciences, Western Norway University of Applied Sciences

Abstract:

AIM: To examine whether age and/or gender are independently associated with diabetes and/or weight stigmas among adults with T2D in Australia.

METHOD: Data were from the cross-sectional online Diabetes MILES-2 survey. Eligible participants (mainly recruited via NDSS) self-reported T2D. Validated measures assessed experienced/internalised diabetes stigma (DSAS-2 total score, subscales: blame and judgment; treated differently; self-stigma), and internalised weight stigma (WSSQ total score, subscales: fear of enacted stigma; self-devaluation); higher scores indicated greater experience. (Un)Adjusted linear regression tested cross-sectional associations (confounders: BMI, diabetes-related complications, diabetes duration).

PARTICIPANTS: N=1,264; aged 61±9yrs (range 22-75); 43% women, 57% men; mean BMI 31±7kg/m2; 57% reported ≥1 diabetes-related complication/s; mean diabetes duration 11±7yrs.

RESULTS: Age and gender together explained between 6-13% of variance in DSAS-2 and WSSQ total and subscale scores (excluding WSSQ self-devaluation). Across models, age was a stronger predictor than gender ($\beta<-0.32$ vs $\beta<-0.18$). DSAS-2 scores were significantly lower for older participants (total, all subscales) and men (total, blame and judgment subscale only); WSSQ scores were also significantly lower for older participants and men (total, fear of enacted stigma subscale only); range $\beta=-0.1$–$\beta=-0.3$. Observed independent associations were retained after adjusting for confounders, while higher BMI became the strongest predictor of higher WSSQ total and subscale scores (range $\beta=+0.1$–$\beta=+0.3$).

CONCLUSION: Results suggest differential experiences of diabetes and weight stigmas among adults with T2D; whereby younger adults and women more often reported such stigmas. This may suggest greater unmet needs relevant to their experiences. Qualitative exploration is needed to better understand lived experiences of subpopulations with T2D.

1.1.2

Title: Loneliness in diabetes: How prevalent is it and what factors determine it.

Authors: Anggi Lukman Wicaksana[1,2]; Renny Wulan Apriliyasari[3]; Pei-Shan Tsai[4,5,6]

Presenting Author: Anggi Lukman Wicaksana[1,2]
Affiliations: [1]Universitas Gadjah Mada; [2]Taipei Medical University; [3]Institute Teknologi Kesehatan Cendekia Utama; [4]Taipei Medical University; [5]Wang Fang Hospital; [6]Taipei Medical University Hospital

Abstract:

Aims: The study aimed to estimate the prevalence and determinants of loneliness among people with diabetes.

Methods: A meta-analysis was conducted on six databases, focusing on loneliness and severe loneliness in people with diabetes. We included studies that reported incidence or the determinant factors in adults or older people with diabetes, employing observational or interventional designs. A random-effects model was applied, and outcomes were presented as event rates and odds ratios. Heterogeneity was assessed using the I2 and Q statistics, and a leave-one-out analysis was performed to examine the robustness of the results.

Participants: A total of 6036 people with diabetes from 10 studies were included.

Results: All studies contributed to the prevalence estimates, but only five presented data on determinant factors. Most studies originated from high-income countries and employed a cohort design. The pooled prevalence of loneliness was 31.1% ($p = 0.003$, $Q = 597.314$, $I2 = 98.49\%$), and 4.6% of participants reported severe loneliness ($p < 0.001$, $Q = 20.041$, $I2 = 85.03\%$). Significant determinants of loneliness included White-ethnic (OR = 1.41), low education (OR = 1.62), low and middle income (OR = 3.21, OR = 1.87, respectively), longer diabetes (OR = 1.27), lower cognitive function (OR = 2.58), living alone (OR = 3.56), previous lonely experience (OR = 7.43), and depression (OR = 1.22).

Conclusions: Approximately one-third of people with diabetes experience loneliness, and about 5% report severe loneliness. Sociodemographic, psychosocial, and socioeconomic factors contribute significantly to loneliness in this population

1.1.3

Title: Hypoglycemia and psychological health in people with T2D: results from the Trøndelag Health Study

Authors: Hilde Kristin Refvik Riise[1]; Anne Haugstvedt[1]; Eirik Søfteland[2,3]; Monica Hermann[1]; Sofia Carlsson[4]; Timothy Skinner[1,5]; Bjørn Olav svold[6,7,8]; Marjolein Iversen[1]

Presenting Author: Hilde Kristin Refvik Riise[1]
Affiliations: [1]Department of Health and Caring Sciences, Western Norway University of Applied Sciences, Bergen, Norway; [2]Department of Clinical Medicine, University of Bergen, Bergen, Norway; [3]Haukeland University Hospital, Bergen, Norway; [4]Institute of Environmental Medicine, Karolinska Institutet, Sweden; [5]The Australian Centre for Behavioral Research in Diabetes, Melbourne; [6]Department of Endocrinology, Clinic of Medicine, St Olavs Hospital, Trondheim University Hospital, Trondheim, Norway; [7]HUNT Center for Molecular and Clinical Epidemiology, Department of Public Health and Nursing, NTNU, Norwegian University of Science and Technology, Trondheim, Norway; [8]HUNT Research Centre, Department of Public Health and Nursing, NTNU, Norwegian University of Science and Technology, Levanger, Norway

Abstract:

Aim: Hypoglycemia is a burdensome complication not only in type 1 diabetes but also in type 2 diabetes (T2D). It is increasingly recognized as a contributor to psychosocial distress, yet population-based evidence is limited. We examined associations of mild and severe hypoglycemia with diabetes distress, depression, and anxiety.

Methods: Cross-sectional analyses included adults (≥20 years) with T2D from the Trøndelag Health Study (HUNT4, 2017-2019). Mild hypoglycemia was defined as ever having self-reported symptoms such as shivering, sweating, or rapid heartbeat, and severe hypoglycemia as ever having episodes requiring help from others and/or loss of consciousness. Diabetes distress was assessed with the Problem Areas in Diabetes scale (PAID-5), and anxiety and depression with the Hospital Anxiety and Depression Scale (HADS, cutoff ≥8). Associations with PAID-5 were examined using linear regression, and with HADS using logistic regression, both adjusted for age and sex.

Results: Among 2,042 participants (56.9% men; mean age 67.7 years; mean diabetes duration 12 years), 37.3% reported mild hypoglycemia and 8.3% severe hypoglycemia. Mild hypoglycemia was more common in women (39.5% vs. 35.5%), severe hypoglycemia in men (9.5% vs. 6.8%). Mild hypoglycemia was associated with depression (OR 1.9, 95% CI 1.5–2.6) and anxiety (OR 1.8, 95% CI 1.4–2.4), mainly in women. Severe hypoglycemia was associated with increased diabetes distress (B = 2.1, 95% CI 1.4-2.9), particularly in younger adults.

Conclusion: Severe hypoglycemia is strongly associated with increased diabetes distress, while mild hypoglycemia is linked to depression and anxiety. Preventing hypoglycemia may reduce the psychological burden of T2D.

1.1.4

Title: Diabetes distress and depression are common in people with established diabetes-related foot disease and associated with autonomic neuropathy symptoms.

Authors: Md Kamruzzaman[1,2,3]; Elham Hosseini-Marnani[1,2]; Jessica A Marathe[1,4,5]; Robert Fitridge[6]; Cathy Loughry[7]; Karen L Jones[1,2,8]; Michael Horowitz[1,2,8]; Chinmay S Marathe[1,2,8]

Presenting Author: Jessica A Marathe[1,4,5]
Affiliations: [1]Adelaide Medical School, University of Adelaide, SA, Australia; [2]Centre of Research Excellence in Translating Nutritional Science to Good Health; [3]Dept of Applied Nutrition and Food Technology, Islamic University, Kushtia, Bangladesh; [4]Department of Cardiology, Royal Adelaide Hospital, Adelaide, Australia; [5]Lifelong Health Theme, South Australian Health and Medical Research Institute, Australia; [6]Department of Vascular and Endovascular Surgery, Adelaide Medical School; [7]Department of Podiatry, Royal Adelaide Hospital, SA, Australia; [8]Endocrine and Metabolic Unit, Royal Adelaide Hospital, SA, Australia

Abstract:

Aims: Autonomic neuropathy can inflict significant morbidity in people with diabetes and associated with psychological conditions. We evaluated the relationships between autonomic neuropathy, diabetes distress (DD) as well as depression (DP), in people with diabetes-related foot ulceration (DFU), where it has hitherto been poorly studied.

Methods: 101 unselected participants attending two high-risk diabetes-related foot clinics at university hospitals in Adelaide, Australia completed validated questionnaires for autonomic neuropathy (COMPASS-31), DD (DDS-17) and depression (PHQ-9). Cutoffs of ≥16, ≥2 and ≥10 respectively were considered out of range for COMPASS-31, DDS-17 and PHQ-9. Results are shown as mean±SEM.

Participants: Mean age: 68.6±1.2Yrs; male: 84%; BMI: 30.0±0.7 kg/m2; waist circumference: 117.0±2.4 cm; duration of known diabetes: 18.7±1.4Yrs, HbA1c: 8.5±0.3%) with established DFU(44 (88%) neuropathic, 23 (51.1) ischaemic and 19 (40.4%) neuroischaemic ulcers; Wound, Ischaemia, Foot Infection (WIFI) score: 1.7±0.17.

Results: Overall, 54 (56.3%) had a COMPASS-31 score ≥16, indicative of significant autonomic dysfunction. COMPASS-31 scores were greater in both people with DD (28.1±3.0 vs 18.1±1.8, P=0.004) and depression (30.4±3.0 vs 16.6±21.7, P<0.001) than those without. People with a COMPASS-31 score ≥16 had increased odds of reporting depressive symptoms (OR: 4.0, 95%CI: 1.4-12.6, P=0.013). It appeared that a higher COMPASS-31 score also increased the odds of experiencing DD, although this was not statistically significant (OR: 1.6, 95%CI: 0.50-5.3, P=0.435), after adjusting for age, gender, BMI and duration of diabetes.

Conclusions: A high autonomic neuropathy symptom score increases the odds of depression in people with DFU and may thus represent another barrier to optimal diabetes-related foot care.

1.1.5

Title: Mental health benefits of CamAPS Fx Based Ahcl for people with T1DM, glucose levels outside of target range and psychological conditions: results from the Hi-Loop Study.

Authors: Katarzyna Cyranka[1,2,3]; Jerzy Hohendorff[4,5]; Bartomiej Matejko[2,3]; Marta Wrobel[6]; Agata Grzelka-Wozniak[7]; Magdalena Plonka-Stepien[5]; Michalina Adamczyk-Hohendorff[5]; Dominika Rokicka[6]; Anna Sasula-Jasek[8]; Krzysztof Strojek[6]; Dorota Zozulinska-Ziolkiewicz[7]; Maciej Malecki[4,5]; Tomasz Klupa[3,4]

Presenting Author: Katarzyna Cyranka[1,2,3]
Affiliations: [1]Jagiellonian University Collegium Medicum, Kraków, Poland; [2]University Hospital in Kraków, Kraków, Poland; [3]Jagiellonian University Medical College, Kraków, Poland; [4]Jagiellonian University Medical College, Department of Metabolic Diseases, Krakow, Poland; [5]University Hospital in Krakow, Krakow, Poland; [6]Medical University of Silesia, Department of Internal Medicine, Diabetology; Cardiometabolic Disorders, Zabrze, Poland; [7]Poznan University of Medical Sciences, Department of Internal Medicine; Diabetology, Poznan, Poland; [8]Wyzsza Szkoa Bezpieczenstwa Publicznego i Indywidualnego Apeiron, Krakow, Poland

Abstract:

Aim: Adults with type 1 diabetes (T1DM) and mental health challenges often struggle with suboptimal glycaemic management and elevated diabetes distress. The HiLoop Study aimed to evaluate whether the CamAPS FX AHCL improves glycaemic control, quality of life, and psychological outcomes in this vulnerable population.

Method: This multicentre, randomized, open-label trial enrolled adults aged 18–65 years with T1DM, HbA1c ≥9.0% and significant psychological burden (distress, burnout, fear of hypoglycaemia, depression, or neurotic symptoms). Participants were randomized to CamAPS FX or continuation of prior therapy. Outcomes included HbA1c, time-in-range (TIR), and validated questionnaires: DDS, PAID, Diabetes Burnout (DB), QIDS, WHO-5, and EQ-5D.

Results: Preliminary analysis included 21 participants (10 CamAPS FX, 11 control). At baseline, both groups showed difficulty with metabolic management (HbA1c ~10.5%, TIR ~30%) and psychological distress (DDS 3.1, PAID 41, DB 3.5, WHO-5 10.5). After 3 months, HbA1c decreased by −2.7±1.4% with CamAPS FX versus −0.9±1.2% in controls; TIR increased by +29.3% vs −3.1%. CamAPS FX significantly reduced diabetes burnout (DB 2.7→1.0, p=0.03) and showed favorable trends in regimen-related distress (p=0.086; between-group p=0.022). Controls improved in PAID (p=0.01), DB (p=0.02), and WHO-5 well-being (p=0.02), likely reflecting enhanced support and treatment expectations.

Conclusions: In adults with T1DM and mental health challenges, improvement in the CamAPS FX group reflects the direct effect of AHCL, while in controls - enhanced care and positive expectations of future pump therapy. These findings highlight the potential of advanced hybrid closed-loop therapy to simultaneously address glycaemic and psychological burden in high-risk patients.

Parallel session 1.2 Completed Work: Diabetes Programs and interventions

1.2.1

Title: Co-designing a Digital Mental Health Intervention for Individuals with Diabetes: The MyDiaMind Experience

Authors: Hamimatunnisa Johar[1,2,3]; Norlaili Halim[2]; Badariah Ahmad[2]; Seryan Atasoy[4,5]; Tin Tin Su[1,2,3]

Presenting Author: Hamimatunnisa Johar

Affiliations: [1]South East Asia Community Observatory (SEACO), Global Population Health; [2]Jeffrey Cheah School of Medicine and Health Sciences, Monash University Malaysia, Subang Jaya, Malaysia; [3]Heidelberg Institute of Global Health, Faculty of Medicine, University of Heidelberg, Heidelberg, Germany; [4]Department of Psychosomatic Medicine and Psychotherapy, Klinikum rechts der Isar, Technische Universität München, Munich, Germany; [5]Department of Psychosomatic Medicine and Psychotherapy, University of Giessen and Marburg, Giessen, Germany

Abstract:

Background: Individuals with diabetes frequently experience psychological distress, which impairs quality of life, diabetes management, and glycaemic outcomes, highlighting the need for accessible, evidence-based mental health interventions.

Aim: This study aims to develop a culturally appropriate digital mental health intervention (DMHI) that includes evidence-based psychoeducational modules for individuals with diabetes using a co-design approach.

Methods: Using a co-design framework and mixed-method evaluations, we developed a DMHI in collaboration with medical professionals, researchers, and individuals with diabetes. Thematic analysis of focus group discussions (FGD) identified potential content and digital features. A web-based, psychoeducational module (MyDiaMind) was then tested in a user prototype testing to assess its acceptability and usability with participants from main ethnic groups in Malaysia (Malay, Chinese, Indian).

Results: Ten individuals with diabetes (50% women; mean age 61.1 ± 10.2 years) and six research team members identified key themes of diabetes distress and coping mechanisms (e.g., problem-solving, emotional, and social support strategies), which informed the development of the psychoeducation modules. Participants prioritised diabetes education and goal setting as key content, with bite-sized videos as their preferred digital feature. In the user testing, all participants rated MyDiaMind modules as high quality, relevant, and effective, with strong intention to revisit the modules. Expert panels suggested a more customised mental health support for people with diabetes.

Conclusion: A co-design approach is feasible and effective in identifying priorities for a culturally appropriate DMHI, in improving the psychological well-being of individuals with diabetes.

1.2.2

Title: “Not a fear, just an occurrence now”: Qualitative feedback from adults with T1D about an online, self-guided, psycho-educational program for adults with T1D: An intervention mapping approach.

Authors: Alison Robinson[1,2]; Jennifer Halliday[1,2]; Timothy Skinner[1]; Elizabeth Holmes-Truscott1,[2]; Jane Speight[1,2]

Presenting Author: Alison Robinson [1,2]
Affiliations: [1]Deakin University; [2]ACBRD

Abstract:

Aims: HypoPAST (Hypoglycaemia Prevention, Awareness of Symptoms, and Treatment) is a fully online, self-guided, psycho-educational program for reducing fear of hypoglycaemia (FoH) among adults with type 1 diabetes (T1D). This qualitative sub-study explored users’ experiences implementing program strategies, and how HypoPAST affected their thoughts and feelings about hypoglycaemia.

Methods: A 6-month, two-arm, parallel-group, hybrid type 1 randomised controlled trial compared HypoPAST (intervention) to usual care (control). Trial participants were adults (≥18 years) in Australia, with T1D, FoH, and an internet-enabled device. Participants were eligible for this qualitative sub-study if they were allocated to the intervention group and used ≥2 HypoPAST modules. We conducted semi-structured, audio-recorded telephone interviews (~30-45 minutes) at end-trial (≥24 weeks post-randomisation; September 2024 to May 2025). Interview transcripts were analysed inductively and thematically.

Participants: Of 25 people invited to interview, 18 (72%) participated (median age: 40 (range: 25-81) years; T1D duration: 15 (0-62) years; 11 women, 6 men, and one non-binary person).

Results: Participants viewed HypoPAST as an acceptable, unique, and flexible resource. Participants described how HypoPAST refreshed or expanded their knowledge; assisted them to problem solve or reframe unhelpful thoughts leading to more effective hypoglycaemia management; and/or feel less anxious about or alone in experiencing hypoglycaemia-related problems.

Conclusion: HypoPAST fills an unmet need, in the form of an online, flexible program which supports adults with T1D to identify ways to manage hypoglycaemia and related fears. Participants took information and strategies from HypoPAST and translated these into beneficial changes in their hypoglycaemia-related thoughts, feelings and behaviours.

1.2.3

Title: Developing HypoPAST (Hypoglycaemia Prevention, Awareness of Symptoms and treatment), a fully online, self-guided psycho-educational program for adults with T1D: An intervention mapping approach.

Authors: Jennifer Halliday[1,2]; Alison Robinson[1,2]; Sienna Russell-Green[1,2]; Elizabeth Holmes-Truscott[1,2]; Shaira Baptista[1,2,3]; Caitlin Rogers[4]; Rachel Zinman[4]; James Shaw[5]; Jane Speight[1,2]

Presenting Author: Jennifer Halliday[1,2]
Affiliations: [1]Deakin University; [2]ACBRD; [3]Monash University; [4]HypoPAST Lived Experience Steering Group; [5]Newcastle University

Abstract:

Aims: To use intervention mapping to plan development, implementation, and evaluation of a fully-online, psycho-educational program to support adults with type 1 diabetes (T1D) experiencing hypoglycaemia-related problems (fear of, severe, and frequent hypoglycaemia).

Methods: We utilised the 6-steps of intervention mapping: logic model of the problem, program outcomes and objectives, program design, program production, program implementation plan, and evaluation plan. This involved:

- engaging a team of academic, clinical and lived experience (T1D) experts
- conducting literature reviews
- developing logic models, program content, and research protocol (implementation and evaluation plan)
- inviting review of draft intervention materials (including text, images, and activities) by adults with T1D; conducting cognitive debriefing interviews to capture reviewers' feedback and inform program implementation; and feeding-back findings and adaptations in group discussions with the reviewers.

Results: HypoPAST (Hypoglycaemia Prevention, Awareness of Symptoms, and Treatment) is a fully-online, self-guided, psycho-educational program for reducing fear of hypoglycaemia among adults with T1D. The program has 7 modules (25-55 minutes each). The modules include lived experience videos and quotes; informational videos delivered by a psychologist, a diabetes educator, and a person with T1D; reflection and problem-solving activities; and printable information leaflets and activity sheets.

Conclusion: Intervention mapping facilitated systematic planning, development, and evaluation of HypoPAST. The resulting program is informed by published literature, psychological and behavioural theory, and academic, clinical and lived experience. Outcome, health economic and process evaluation will provide insight into the effectiveness, cost-effectiveness, feasibility and acceptability of HypoPAST.

1.2.4

Title: Parenting interventions for parents of children with T1D: a systemic review.

Authors: Mandy Jansen[1,2]; Paul G Voorhoeve[2,3]; Lianne Wiltink[3,4]; Judith B. Prins[1]; Giesje Nefs[1,5,6,7]

Presenting Author: Mandy Jansen[1,2]
Affiliations: [1]Radboud University Medical Center, Nijmegen, The Netherlands; [2]Canisius Wilhelmina Hospital, Nijmegen, The Netherlands; [3]Vivendia, Nijmegen, The Netherlands; [4]De Kleine Berg, Nijmegen, The Netherlands; [5]Tilburg University, Tilburg, The Netherlands; [6]Diabeter Centrum Amsterdam, Amsterdam, The Netherlands; [7]Diabeter, Rotterdam, The Netherlands

Abstract:

Aims: Parenting interventions can improve outcomes in type 1 diabetes by enhancing positive parenting behaviors. This systematic review assessed the effectiveness of parenting interventions for parents of children with type 1 diabetes, in terms of changes in parenting behaviors, family functioning, psychosocial outcomes, and diabetes-related outcomes.

Methods: A comprehensive search of PubMed, EMBASE, Cochrane Library, CINAHL, and PsycINFO was conducted for studies published between 1980 and February 25, 2025. Eligible studies included both controlled and uncontrolled designs reporting quantitative outcomes. Narrative synthesis was applied, and intervention techniques were categorized using a behavioral taxonomy. Risk of bias was evaluated using the Cochrane Risk of Bias 2.0 tool (for controlled studies) and ROBINS-I (for uncontrolled designs).

Participants: From 12654 records screened, 51 studies (reported across 72 publications) describing 37 distinct parenting interventions met inclusion criteria (0-18yrs, 6 months diabetes duration, addressing parenting behaviors).

Results: Most included studies were at elevated risk of bias, and overall effects were mixed. However, intensive, targeted interventions demonstrated the strongest influence on psychosocial and diabetes-related outcomes. Preventive approaches and even control conditions sometimes yielded benefits, though many preventive trials were underpowered. Diabetes-specific program content appeared necessary, but not always sufficient, for diabetes outcome improvement. Intervention strategies varied, and no single component could be uniquely linked to effectiveness.

Conclusion/Discussion: Parenting interventions represent a promising, though not exclusive, strategy to enhance psychosocial and diabetes outcomes. Future work should clarify which families benefit most, compare parenting programs to other forms of support, and identify core components essential for success.

1.2.5

Title: A mixed-methods process evaluation of therapy delivery in a novel cognitive behavioural therapy intervention for T1D and disordered eating: Safe management of people with T1D and Eating Disorders Study (STEADY)

Authors: Natalie Zaremba[1]; Amy Harrison[2]; Jennie Brown[3]; Divina Pillay[1]; Emmanouela Konstantara[1]; Janet Treasure[1]; David Hopkins[4]; Judith Prins[5]; Bastiaan de Galan[6]; Khalida Ismail[1]; Giesje Nefs[5]; Marietta Stadler[1]

Presenting Author: Natalie Zaremba[1]
Affiliations: [1]Kings College London; [2]University College London; [3]Kings College Hospital; [4]Kings Health Partners; [5]Radboud University Medical Centre; [6]Maastrict University Medical Centre

Abstract:

Aim. STEADY is a novel cognitive behavioural therapy (CBT) intervention for people with type 1 diabetes and disordered eating (T1DE) co-designed by people with T1DE. The aim of this mixed-method process evaluation is to assess the acceptability, appropriateness, and feasibility of STEADY, and explore experiences of participants and therapists during therapy delivery.

Methods. Participants who received STEADY (n=13) and healthcare professionals delivering therapy (n=3) completed person reported outcome measures (PROMs) to assess the acceptability (AIM), appropriateness (IAM), and feasibility (FIM) of STEADY and completed semi-structured interviews to explore experiences, therapeutic processes, and implementation considerations. Interviews were analysed using thematic analysis.

Results. Mean(SD) PROM scores indicated high ratings for participants (AIM=18.36±2.01; IAM=18.18±2.64; FIM=18.00±2.32) and therapists (AIM=17.67±.2.08; IAM=17.33±2.31; FIM=17.67±2.08), with mean scores above 16 indicating high likelihood of implementation success. Thematic analysis showed significant overlap in participant and therapist experiences, emphasizing tailored, flexible therapy delivery, therapists' T1DE expertise, therapeutic alliance, and adaptation of standard CBT models. STEADY participants' key themes were, Therapeutic growth (e.g. self-compassion); Integrated T1DE approach (bespoke, relevant therapy); Therapeutic relationship (trust, collaboration); and Expectations of therapy (vulnerability). STEADY therapists' key themes were, Bespoke therapy (e.g. non-prescriptive); Participant engagement (therapeutic alliance, T1DE complexity); Therapeutic skills (specialist T1DE knowledge, clinical judgement); and Organisational factors (multidisciplinary support).

Conclusions. Our findings suggest STEADY is acceptable, appropriate, and feasible for people with mild to moderate severity T1DE. The substantial alignment between participant and therapist perspectives offers clear directions for refining the intervention and support wider implementation in a full-scale randomised controlled trial.

1.2.6

Title: Impact and experiences of parents related to the LosVast parent program in pediatric T1D – a realist-inspired process evaluation.

Authors: Mandy Jansen[1,2,3]; Paul G Voorhoeve[2,3]; Lianne Wiltink[3,4]; Nicole Boerboom[2,3]; Judith B. Prins[1]; Giesje Nefs[1,5,6,7]

Presenting Author: Mandy Jansen[1,2,3]
Affiliations: [1]Radboud University Medical Center, Nijmegen, The Netherlands; [2]Canisius Wilhelmina Hospital, Nijmegen, The Netherlands; [3]Vivendia, Nijmegen, The Netherlands; [4]De Kleine Berg, Nijmegen, The Netherlands; [5]Tilburg University, Tilburg, The Netherlands; [6]Diabeter Centrum Amsterdam, Amsterdam, The Netherlands; [7]Diabeter, Rotterdam, The Netherlands

Abstract:

Aims: Parents play a pivotal role in managing type-1 diabetes (T1D), yet the care burden may elicit unsupportive parenting behaviors that are linked to suboptimal outcomes. The routine-care “LosVast” (“LooseTight”) group-based program aims to enhance positive parenting. This study explores parents’ experiences with LosVast to understand what works, for whom, why, how and under what circumstances.

Methods: This mixed-methods, realist-inspired evaluation combined post-program satisfaction measures and parent interviews related to standardized and adapted program delivery. Quantitative data were analyzed descriptively, qualitative data were coded thematically and narratively.

Participants: Parents of children 4-19yrs with T1D who participated in LosVast were recruited across 12 pediatric diabetes centers in the Netherlands (113/201 enrolled parents completed satisfaction questionnaires). Interview participants (k=18 families/N=38 parents) were purposively sampled to capture diverse backgrounds/experiences.

Results: Average program satisfaction (m=5.4/7; SD=1.2) and recommendation (m=5.5/7; SD=1.2) were moderate-high. Beyond intended program aims, parents valued peer support. Most parents described increased awareness of family dynamics, while actual changes in parenting and collaboration were most evident for families with moderate pre-existing difficulties. Regarding perceived benefits, content resonated most with parents facing moderate—not minimal or severe—difficulties. Group benefits (recognition, learning, helping others, preparing for the future, validation, putting in perspective) were strongest in groups matched by child age and diabetes stage, while also including families slightly more experienced.

Conclusion/Discussion: LosVast can facilitate reflection and enhance constructive diabetes-related parenting, primarily through guided peer exchange. Perceived benefit depends on contextual “fit,” underscoring the need for careful group composition and tailored delivery.

Parallel session 2.1 Work in progress: Populations experiencing socioeconomic or social vulnerability

2.1.1

Title: Co-designing a person-centered tool to support young adults with T1D bridging daily life and clinical encounters

Authors: Anka van Gastel[1,2]; Matthijs Graner-Baars[3]; Joris Swaak[4]; Eelco J.P. de Koning[1]; Victor M. Montori[2]; Viet-Thi Tran[5]; Sean F. Dinneen[6]; Jessica Mesman[7]; Henk-Jan Aanstoot[8]; Anne Stiggelbout[1]; Marleen Kunneman[2,9]

Presenting Author: Anka van Gastel [1,2]

Affiliations: [1]Leiden University Medical Center; [2]Mayo Clinic; [3]The ééndiabetes foundation; [4]Panton Medical Design Agency; [5]Paris Diderot University; [6]Galway University Hospitals; [7]Maastricht University; [8]Diabeter; [9]Health Campus the Hague

Abstract:

Aims: To co-design a tool to support young adults with Type 1 diabetes (w/T1D) to discuss and consider the impact of diabetes and their efforts in making care fit with clinicians during encounters.

Methods: Through a user-centered iterative design approach, we explored the needs of young adults and co-designed a person-centered tool. We took the following steps: 1) design workshops with young adults to capture what would help them discuss the impact and efforts, 2) national survey assessing needs in clinical care among young adults w/T1D, 3) prototype development including iterative feedback on an agenda-setting and conversation tool. Next, we will field-test our tool by video-recording clinical encounters and conducting post-encounter interviews. We will test the fidelity to the tool and satisfaction with its use. In a future larger qualitative encounter study, we will compare usual care with use of our conversation tool.

Planned analysis: Preliminary findings highlight young adults' needs to journal and keep track of situations they want to discuss with their clinician, and to have conversation starters available. They also need improvements in diabetes care, such as feeling understood, listened to, and a more practical focus. We made adjustments to our prototype tool following feedback from young adults w/T1D and experts in conversation tool design. Next, we will analyze researcher notes of the field testing, including the encounter recordings and interviews, to identify ways to improve the conversation tool.

Problems/questions: We are seeking input on our prototype and on the field testing study design.

2.1.2

Title: Addressing Unmet Needs of People with Diabetes Through Digital Social Prescribing

Authors: Chris Lynch [1];Brian Oldenburg[1]; Bryan Cleal[2]

Presenting Author: Chris Lynch [1]
Affiliations: [1]Baker Heart and Diabetes Institute, Melbourne, Australia; [2]Steno Diabetes Centre, Copenhagen, Denmark

Abstract:

For people with diabetes, the challenges of daily life extend well beyond clinical care. Many experience isolation, distress, and unmet psychosocial needs that healthcare alone cannot address. Culturally responsive, community-based strategies are required to target these determinants of health.

Aim: To codesign, implement, and evaluate a digital social prescribing pathway within an integrated type 2 diabetes clinic.

Design/Methods: Over 24 months, this project will progress in two phases.

1/ Codesign: Using Trischler's seven-step process and Experience-based Codesign, five workshops will be held. Health and social care professionals (n=15) will draft a pathway; people with diabetes (n=20) will provide feedback and refinement; and a final joint workshop will co-create an implementation and evaluation plan. The process will embed monitoring of psychological wellbeing and integrate an AI-driven engine with a secure database to personalise referrals and connect users with community supports.

2/ Pilot: A single-arm study will test acceptability, feasibility, and preliminary effectiveness of digital social prescribing within a metropolitan health service. Validated surveys will be collected at baseline and three months, supplemented by digital analytics. Semi-structured interviews with participants and professionals will explore user experience, barriers, facilitators, and contextual factors.

Analysis: Codesign data will be analysed inductively, with consensus on key decisions. Feasibility and acceptability outcomes will be reported descriptively (95% CI). Psychosocial and behavioural changes will be examined with paired tests and exploratory regression models. Interviews will be thematically analysed using COM-B and CFIR lenses.

Expected Outcomes: Implementation-ready strategies tailored to local contexts, advancing holistic diabetes care and health equity.

2.1.3

Title: Evaluation of the Young Adults with Diabetes Service (YADS) at Monash Health, Victoria, Australia

Authors: Rebecca Goldstein[1]; Ashley Ng[1]; Negar Naderpoor[1]; Montana Sweeney[2]

Presenting Author: Rebecca Goldstein[1]
Affiliations: [1]Monash University; [2]Deakin University

Abstract:

Aims: Young adults with diabetes often struggle with psychosocial challenges, competing life priorities and inconsistent attendance at medical appointments which impact their diabetes care. Our aim is to evaluate the two Monash Health YADS by assessing patient and clinician's acceptability, and barriers and facilitators to engagement.

Methods: A mixed methods approach will be taken. Patients (aged 16-30) attending YADS will complete a survey assessing use of diabetes management tools, hospital admissions, as well as emotional wellbeing and diabetes treatment satisfaction. Semi-structured interviews will be conducted with patients and carers, and clinicians including endocrinologists, credentialled diabetes educators and allied health professionals.

Planned analysis: Quantitative data will be descriptively reported. Interview transcripts will be analysed via thematic analysis to determine key themes. Underpinning the methodology is the Learning Health System framework (LHS), an evidence-based, co-designed model for iterative process to facilitate behaviour and systems change for implementation. To understand the individual capability, motivation and barriers to patient engagement, the interview guides have been developed and mapped against the Capability, Opportunity and Motivation for Behaviour change (COM-B) model. The COM-B model provides a framework to understand behavioural drivers of an individual's actions, within the context of the inner and outer settings.

Expected outcomes: Managing care for Young Adults with Diabetes is challenging. This study will expand current knowledge on transition models of care in Young Adults with Diabetes. It will identify areas where the service can be improved, ultimately aiming to improve patient satisfaction, attendance and long term health outcomes.

2.1.4

Title: Diabetes Paediatric to Adult Transition in Healthcare (Diabetes PATH) - Defining success and best practice paediatric to adult diabetes care transition

Authors: Ashley Ng[1,2]; Negar Naderpoor[1,2]; Rebecca Goldstein[1,2]; Shannon Lin[3]; Siobhan Barlow[4]; Anthony Pease[2]

Presenting Author: Ashley Ng[1,2]
Affiliations: [1]Monash Centre for Health Research and Implementation [MCHRI]; [2]Monash Health; [3]University Technology of Sydney; [4]Type 1 Foundation

Abstract:

Aim: Despite understanding the challenges young people face with diabetes self-management, transition services vary greatly, resulting in unequal opportunity to achieve optimal health outcomes. This project aims to understand best practice in a paediatric to adult diabetes care transition service in Australia for young people with type 1 diabetes (T1D).

Methods: A mixed methods study design using a national survey and interviews or focus groups with purposively sampled stakeholders will be conducted to better understand the drivers of success for paediatric to adult transition services for young people with T1D. A reference group will be established with a minimum of two representatives from each stakeholder group (young adults with T1D aged 16-35 years, family members/caregivers and diabetes healthcare professionals). Together with the research group, the reference group will co-design data collection tools and strategies, contextualise findings and support dissemination of findings within their own networks. The COM-B Model for Behaviour Change and RE-AIM framework as part of the Consolidated Framework for Implementation Research will also inform the development of the survey and interview guides for stakeholders.

Planned Analysis: Template (thematic) analysis will be used to analyse qualitative data to identify key themes across each stakeholder group and synthesised to provide overarching future recommendations. Quantitative data from the survey will be descriptively reported.

Expected Outcomes: Insights on how peer support in particular, as part of complementary interdisciplinary care, can play an important role to facilitate a successful transition from paediatric to adult services for young people with T1D.

2.1.5

Title: A pitch for a large online study that targets psychosocial barriers and unmet care needs among people with diabetes who live in low- and middle income countries around the globe.

Authors: Frans Pouwer[1,2,3,4]

Presenting Author: Frans Pouwer[1,2,3,4]
Affiliations: [1]School of Psychology, Deakin University; [2]Department of Psychology, University of Southern Denmark; [3]Steno Diabetes Centre Odense; [4]Faculty of Health and Caring Sciences, Western Norway University of Applied Sciences

Abstract:

Aim: To conduct a global study that is focused on psychosocial barriers and unmet care needs of people with type 1 or type 2 diabetes (PWD) in low- and middle income countries.

Design/Methods: A task force will be established with representatives from low and middle income counties (researchers, PWD, diabetes care providers, healthcare policy makers and diabetes industry). In a second step, the study will be designed as a multi-country online observational study among adults with diabetes (type 1, type 2). An English version of the online assessment tool will be developed, that will be translated into many other languages. It is proposed that the following domains should be covered: 1) which diabetes care has the participant received, including care for psychosocial problems? 2) how satisfied is the respondent with diabetes care and 3) what are perceived barriers for optimal diabetes care, including financial problems, communication problems, stigma, lack social support, availability of medication, availability of diabetes equipment, availability of mental health care, presence of mental health problems; diabetes distress, depression, disordered sleep, disordered eating, sexual functioning, stigma and pain 4) what are the unmet diabetes care needs?

Planned Analysis, Expected Outcomes: We will learn more about psychosocial barriers and unmet health care needs among PWD in the low and middle income countries.

Problems/Questions. Where to obtain funding? Suggestions for the study? Who wants to join the task force?

Parallel session 2.2 Work in progress: Precision in diabetes Care

2.2.1

Title: Routine Psychosocial Monitoring for Youth Living with T1D and their Caregivers within Australia: Associations with Demographic and Clinical Variables

Authors: Anna Boggiss[1,2]; Craig Taplin[1,2,3]; Jennifer Couper[4]; Tony Huynh[5]; Jenny Harrington[4]; Kate Lomax[1,3,6]; Helen Clapin[1]; Grant Smith[1]; Elizabeth Davis[1,3,6]; Tim Jones[1,3,6]; Keely Bebbington[1,2]

Presenting Author: Anna Boggiss[1,2]

Affiliations: [1]Children's Diabetes Centre, The Kids Research Institute Australia, Perth, Western Australia, Australia; [2]Centre for Child Health Research, The University of Western Australia, Perth, Western Australia, Australia; [3]Department of Endocrinology and Diabetes, Perth Children's Hospital, Nedlands, Western Australia, Australia; [4]Division of Endocrinology, Women's and Children's Health Network, North Adelaide, South Australia, Australia; [5]Department of Endocrinology and Diabetes, Queensland Children's Hospital, South Brisbane, Queensland, Australia; [6]Division of Paediatrics Medical School, The University of Western Australia, Perth, Western Australia, Australia

Abstract:

Background and Aims: Type 1 Diabetes (T1D) places significant demands on families, with youth and caregivers experiencing clinically significant emotional distress. Despite two decades of international guidelines, many clinics lack routine psychosocial monitoring and integrated mental health care. In 2024, paediatric diabetes clinics across Western Australia, South Australia, and Queensland implemented annual monitoring of quality of life and diabetes distress for youth and caregivers.

Design/ Methods: This multi-centre observational cohort study examines associations between outcome variables—diabetes distress (Problem Areas in Diabetes, PAID) and quality of life (Type 1 Diabetes and Life, T1DAL)—and key demographic and clinical variables among youth with T1D and caregivers. Phase two investigates trajectories over three years.

Planned Analyses: With data transfers currently underway, Bivariate associations will examine diabetes distress and quality of life against age, ethnicity, sex, clinic setting, socioeconomic status, diabetes duration, insulin regimen, HbA1c, and time-in-range. Multiple regression analyses will identify key predictors and moderating relationships.

Expected Outcomes: Baseline associations will inform longitudinal analyses and development of psychosocial risk prediction models for proactive family support. Implementation experiences will guide transition to digital platforms for enhanced scalability.

Questions for Discussion:

a) Based on your implementation experiences, what additional facilitators could we utilise to improve routine psychosocial monitoring?

b) How can we address the implementation paradox of needing psychosocial monitoring data to advocate for resources while facing resource constraints that limit our ability to monitor and respond appropriately?

c) Collectively, are we measuring what matters most to youth living with T1D and their families?

2.2.2

Title: Precision subclassification of mental health in diabetes: Digital TWINs for Precision Mental HEAlth to track subgroups (TwinPeaks)

Authors: Bernhard Kulzer[1,2,3]; Laura Klinker[2,3]; Andreas Schmitt[2]; Dominic Ehrmann[1,2]; Norbert Hermanns[1]

Presenting Author: Norbert Hermanns[1]
Affiliations: [1]Research Institute Diabetes Academy Mergentheim (FIDAM), Bad Mergentheim, Germany; [2]Diabetes Academy Bad Mergentheim (DA), Bad Mergentheim, Germany; [3]Diabetes Clinic Bad Mergentheim, Bad Mergentheim, Germany

Abstract:

AIMS: Identification of subgroups of people with diabetes who show different patterns of glycaemic control and mental health, as well as different associations between glucose levels and psychosocial factors. Mapping the trajectories of certain behavioural factors (e.g. eating, exercise) and psychological factors (e.g. mood, distress) in a large cohort of people with type 1 and type 2 diabetes. Development of a digital twin for precision mental health in diabetes to identify and model the progression and recovery trajectories of mental health issues, as well as metabolic control.

METHODS: We have already established a longitudinal panel of 1,300 participants who will continuously complete EMA and questionnaire surveys while wearing a CGM system. To map mental health, we have conducted over 700 clinical diagnostic interviews to diagnose mental health conditions (e.g. depression, anxiety and eating disorders). To identify subgroups and develop the digital twin, we will expand the data collection to include a total of 1,809 participants. Further metabolic data (e.g. inflammation, HbA1c) will be collected, and the incidence and remission of mental health conditions will be determined through repeated clinical diagnostic interviews.

CONCLUSIONS: The digital twin aims to provide a representation of a real person based on the identified subgroups, enabling simulations and predictions of the course of glycaemic control and mental health. These predictions could inform therapy and lead to more personalised and precise treatment decisions. Ultimately, the digital twin can serve as a clinical decision support system.

QUESTIONS: Evaluation strategies (machine learning), prediction accuracy, clinical benefit.

2.2.3

Title: Exploring the impact of psychology on diabetes distress in young adults with T1D

Authors: Isha Singh[1,2]; Rickie Myszka[1,2]; Gary K. Low[2]; Emily J Hibbert[3]

Presenting Author: Emily Hibbert[3]
Affiliations: [1]Department of Endocrinology, Nepean Hospital, Sydney, Australia; [2]Nepean Blue Mountain Local Health District, Sydney, Australia; [3]Nepean Clinical School, Sydney Medical School, Faculty of Medicine and Health, University of Sydney, Australia

Abstract:

Aims: Diabetes distress (DD) refers to the overall adverse emotional burden of living with diabetes. Untreated, DD does not tend to self-resolve and is associated with an increase in HbA1c and glycaemic crises such as diabetes-related ketoacidosis (DKA). This retrospective study aimed to investigate the impact of intervention by a psychologist on high DD in adolescents and young adults aged 15 to 26 years who were living with type 1 diabetes mellitus (T1DM).

Design/Methods: Data was collected on all T1DM patients attending a tertiary hospital diabetes transition clinic over 7 years. Inclusion criteria comprised a Problem Areas in Diabetes (PAID) questionnaire score ≥40 indicating high DD, and at least two available PAID scores.

Planned Analysis: 81 patients (69.1% female) with DD and a median age of 19.2 years (IQR 14.6-23.8) were followed for a median of 3.7 (IQR 1.4-6.0) years. Of the 52 patients (64.1%) who saw a psychologist, 44 saw the transition clinic diabetes psychologist and 8 saw a private psychologist. Multivariable Poisson and linear regression will be performed using Stata BE v18.0 with a p-value of <0.05 considered statistically significant. This will estimate differences in PAID score and annual rate of DKA presentations between patients who visited a psychologist compared to those who did not.

Problems/Questions: Provided intervention by a psychologist in young people with T1DM and high DD reduces DD or DKA, there should be greater integration of tailored psychologists for DD management into multidisciplinary diabetes care.

2.2.4

Title: METRIC trial: METfoRmin In psyChosis (METRIC) for weight gain prevention

Authors: Richard Holt[1]; Paul French[2]

Presenting Author: Richard Holt[1]

Affiliations: [1]University of Southampton, UK; [2]Pennine Care NHS Foundation Trust

Abstract:

Background & Aim: Antipsychotic medications, while effective for treating psychosis, commonly lead to significant weight gain and increased diabetes risk. Preventing this weight gain through lifestyle changes is difficult and a recent Cochrane Review highlighted the need for pharmacological strategies. This study aims to evaluate the clinical and cost effectiveness of metformin, alongside usual care, in preventing antipsychotic-induced weight gain in individuals with first episode psychosis.

Methods: Adults with first episode psychosis will be recruited within one month of initiating antipsychotic treatment and randomly assigned to receive either modified-release metformin (up to 2g/day) or placebo, both alongside usual care, for 12 months. A follow-up period of up to six months post-treatment will assess the effects of discontinuing metformin. The primary outcome is the absolute change in weight at one year. Secondary outcomes include changes in BMI, waist circumference, lipid profile, HbA1c, and proportions of participants exceeding 5% or 10% weight gain, or reaching BMI thresholds (≥ 25 or ≥ 30 kg/m^2). Additional measures include psychiatric symptoms, medication taking, adverse effects, quality of life, and health economics.

Evaluation: A process evaluation will explore acceptability and feasibility, while a cost-utility analysis will compare costs and QALYs using EQ-5D-5L. The trial will recruit 340 participants (170 per arm), allowing for 15% attrition, with 90% power to detect a clinically meaningful 4 kg weight difference.

Impact: Findings will guide policy on early metformin use in first episode psychosis and inform stakeholders through engagement with professional and community networks.

Parallel session 3.1 Work in progress: Factors affecting diabetes risk and management

3.1.1

Title: Starting diabetes Care Fresh

Authors: Samereh Abdoli[1]; Tracey Stansberry[1]; Kristen Johnson[1,2]; Radian Avynarenko[1]; Komal Jethmalani[1]; Annette Eskew[1]; Sheana Bull[3]

Presenting Author: Samereh Abdoli[1]
Affiliations: [1]University of Tennessee, Knoxville; [2]Institute of Agriculture; [3]ClinicChat

Abstract:

Aims: Adults with type 2 diabetes (T2D) in rural Appalachia experience high rates of food insecurity, which contributes to out of range glycemic outcomes, diabetes distress, and burnout. The START Project aims to test the feasibility and acceptability of an integrated intervention combining fresh produce delivery with an AI-powered nutrition education chatbot.

Design/Methods: This is a two-arm, randomized controlled feasibility study conducted in partnership with Mountain People's Health Councils in Scott County, Tennessee. Participants (n=40–60) will be adults with T2D (A1c ≥ 9%) and food insecurity. The intervention group will receive biweekly home delivery of fresh produce boxes and weekly tailored chatbot messages. The waitlist control group will receive printed resources and produce boxes after Month 3. Data will be collected at baseline, Month 1, Month 2, and Month 3.

Planned Analysis: Quantitative data will be analyzed descriptively and compared across arms using repeated measures analysis. Qualitative interviews with participants and stakeholders will explore feasibility, acceptability, and barriers to sustainability.

Expected Outcomes: The primary expected outcome is improvement in food security. Secondary outcomes include diet quality, nutrition self-efficacy, diabetes distress, burnout, quality of life, and A1c. We anticipate that addressing food insecurity through this combined approach will also improve psychosocial and behavioral outcomes of diabetes self-management.

Problems/Questions: Key questions remain about feasibility of recruitment, engagement with chatbot messaging, and sustaining produce delivery in rural settings. Findings will inform refinement and scalability of the intervention.

3.1.2

Title: The dual stigma of high weight and T2D: insights from a Danish national survey

Authors: Sabina Wagner[1]; Kasper Olesen[1]; Martin Marchman Andersen[2]

Presenting Author: Sabina Wagner[1]
Affiliations: [1]Steno Diabetes Center Copenhagen; [2]University of Southern Denmark

Abstract:

Aims: People with type 2 diabetes (T2D) often live at the intersection of two stigmas: diabetes stigma and weight stigma. This ongoing project aims to quantify the extent of overlap and independent contribution of experienced diabetes stigma and internalised weight stigma to negative health outcomes in Danish adults with T2D.

Design/Methods: A national survey was conducted among Danish adults with T2D and an age- and gender-matched control group without T2D (oversampled to account for lower prevalence of overweight and obesity in the general population compared to the T2D group.). In total, 2,715 individuals responded (843 with T2D). Data collection was completed in August 2025. The survey included the Type 2 Diabetes Stigma Assessment Scale (DSAS-2) and the modified Weight Bias Internalisation Scale (WBIS-M), and responses were linked with national registers containing sociodemographic and clinical information.

Planned Analysis: Using multivariable linear regression, the extent of internalised weight stigma will be compared between respondents with and without T2D, while adjusting for BMI-level. Similarly, the extent of diabetes stigma will be compared across BMI-groups. Additionally, the extent that internalised weight stigma and experienced diabetes stigma independently and interactively correlate with health outcomes will be explored.

Expected outcomes: Diabetes stigma (DSAS2), internalised weight stigma (WBIS-M), healthy eating behaviour, HbA1c and diabetes distress (PAID-5).

Problems/Questions: Problems include navigating the complex relationship between stigma and health, with potential bidirectional causality and confounding factors. Remaining questions include how to translate findings into actionable insights that can inform the design of effective stigma-reducing initiatives within diabetes care services.

3.1.3

Title: What does "stigma-free" diabetes care mean? A multinational qualitative exploration towards addressing T2D diabetes stigma in healthcare settings

Authors: Emmanuel Ekpor[1,2,3]; Elizabeth Holmes-Truscott[1,2,3]; Matthew Garza[6]; Jane Speight[1,2,3]

Presenting Author: Emmanuel Ekpor [1,2,3]

Affiliations: [1]School of Psychology, Deakin University, Geelong, Victoria, Australia; [2]Institute for Health Transformation, Deakin University, Geelong, Victoria, Australia; [3]The Australian Centre for Behavioural Research in Diabetes, Diabetes Victoria, Carlton, VIC, Australia; [4]The diaTribe Foundation, San Francisco, CA, USA

Abstract:

Aims: International consensus calls for an end to diabetes stigma in healthcare, emphasising health professionals' crucial role in facilitating “stigma-free” clinical care. However, there is currently a lack of clear guidance to support diabetes stigma-reduction in healthcare practice. Our aim is to explore and conceptualise the meaning and core components of stigma-free diabetes care from the perspective of people living with type 2 diabetes (T2D).

Design: An online qualitative survey will be conducted using Qualtrics™. Eligible participants will be adults (≥18 years) living with T2D who can complete the survey in English. We aim to recruit a total of >100 participants across multiple countries (including but not limited to Australia, Canada, New Zealand, United Kingdom and United States), to capture diverse experiences and perspectives.

Planned analysis: Data will be managed in NVivo and analysed inductively using reflexive thematic analysis, following Braun and Clarke's six-phase approach. Coding will be iterative, with initial codes developed from participants' narratives and progressively refined into broader themes. The final analysis will aim to generate a conceptual understanding of stigma-free T2D care that can inform practice guidelines and future intervention development.

Problems/Questions: What open-ended questions are most likely to elicit meaningful insights to conceptualise and operationalise stigma-free diabetes care from the perspective of people with T2D? What strategies are effective for recruiting a diverse sample in a multinational online qualitative survey?

3.1.4

Title: Supporting T2D and cardiovascular disease risk-reduction for women and their children following gestational diabetes mellitus: a qualitative study of health promotion professionals.

Authors: Eloise Litterbach[1]; Vidanka Vasilevski[2]; Paige van der Pligt[3]; Sarah Hunter[4]; Olivia Hobbs[2]; Lisa Moran[5]; Elizabeth Holmes-Truscott[1]

Presenting Author: Eloise Litterbach[1]
Affiliations: [1]The Australian Centre for Behavioural Research in Diabetes; [2]Deakin University; [3]Swinburne University; [4]Flinders University; [5]Monash University

Abstract:

Aims: Women who have experienced gestational diabetes (GDM), and their children, are at increased risk of developing type 2 diabetes (T2D) and cardiovascular disease (CVD). A life course approach to health promotion after GDM is recommended, supporting mothers, children and families in risk-reduction. Health professionals (HPs) play a key role in the implementation and uptake of T2D and CVD screening, risk-reduction behaviours and programs. This study explores HPs views regarding their role in risk-reduction after GDM.

Design: This qualitative study involves semi-structured online interviews with HPs (n~20) working in Australia, with women with current/previous GDM. Interviews explore perceptions of roles, responsibilities, barriers and enablers to supporting T2D and CVD risk-reduction, for women and families post-GDM. Transcripts are being analysed using Reflexive Thematic Analysis.

Results: Data collection is underway (n=14, including: Diabetes Educators, Practice Nurses, General Practitioners, Endocrinologists, Midwives, Maternal/Child Health Nurses). Preliminary results indicate that whilst HPs report communicating risk and screening as important, they are unsure of 'who' is responsible for supporting risk-reduction. Conversations regarding risk-reduction behaviours (e.g., physical activity, nutrition) appear to be driven by individual HP priorities. Among this sample of motivated HPs, a life course approach is acceptable. However, HPs seek improved education around the importance of and respectful ways to have risk-related conversations and a clear, well-resourced referral pathway to embed T2D and CVD risk-reduction support into care, for families post-GDM.

Questions: How can behavioural science inform professional roles and responsibilities, and routine support pathways for T2D and CVD risk-reduction for families, after GDM?

3.1.5

Title: Anxiety and depression among people with diabetes after COVID-19 hospitalization: A prospective cohort study.

Authors: Dina Renathe Løland[1]; Jannicke Igland1,[2]; Anne Haugstvedt[1]; Marjolein M. Iversen1,[3]; Eirik Buanes4,[5]; Ragnhild B. Strandberg[1]; Eirik Søfteland6,7,[8]; Hilde Kristin Refvik Riise[1]

Presenting Author: Dina Renathe Løland[1]
Affiliations: [1]Department of Health and Caring Sciences, Western Norway University of Applied Sciences, Bergen, Norway; [2]Department of Global Public Health and Primary Care, University of Bergen, Bergen, Norway; [3]Centre on Patient-Reported Outcomes Data, Haukeland University Hospital, Bergen, Norway; [4]Department of Anesthesia and Intensive Care, Haukeland University Hospital, Bergen, Norway; [5]Norwegian Intensive Care and Pandemic Registry, Haukeland University Hospital, Bergen, Norway; [6]Helse i Hardanger, Kvam, Norway; [7]Department of Medicine, Haukeland University Hospital, Bergen, Norway; [8]Department of Clinical Science, University of Bergen, Bergen, Norway

Abstract:

Background: The COVID-19 pandemic has affected mental health globally, with evidence of increased anxiety and depression, particularly among those with pre-existing conditions. We examined the occurrence of anxiety and depressive symptoms in people with diabetes six months after discharge following COVID-19, comparing those treated in intensive care units (ICU) with those hospitalized in non-ICU settings.

Methods: We used data from the Norwegian Intensive Care Registry. Anxiety and depression were assessed with the Generalized Anxiety Disorder 7-item scale and the Patient Health Questionnaire-9. Comparison between groups was conducted using Student's t-test analyses.

Preliminary Results: Among 3,327 COVID-19 patients with diabetes hospitalized in Norway between March 2020 and December 2022, 716 completed patient-reported outcome measures six months post-discharge. Of these, 106 (14.8%) were admitted to ICUs (79.8% male; mean age 62.3), and 610 (85.2%) to non-ICUs (65.9% male; mean age 65.8). Overall, 40.6% reported anxiety symptoms (cut-off ≥ 5), of which 12.6% experienced moderate to severe anxiety. A total of 63.9% reported depressive symptoms (cut-off ≥ 5), of which 31.5% had moderate to severe scores. Mean anxiety (4.4 [SD 4.3] vs 4.5 [SD 4.9], $p = .878$) and depressive scores (7.2 [SD 5.0] vs 7.8 [SD 6.1], $p = .314$) did not differ between ICU and non-ICU patients.

Preliminary conclusion: Six months following COVID-19 hospitalization, a substantial proportion of patients with diabetes reported anxiety and depression symptoms, with a considerable proportion experiencing moderate to severe symptoms. The symptoms did not differ substantially between ICU and non-ICU patients.

Parallel session 3.2 Work in progress: Qualitative and co-design methods

3.2.1

Title: Understanding the Lived Experiences of Mothers Caring for Children with T1D in Jordan

Authors: Riwa Kahale, Huda Suleiman

Presenting Author: Riwa Kahale

Affiliations:

Abstract:

Background: Managing type 1 diabetes in children requires a complex regimen involving continuous monitoring and constant attention from caregivers, particularly mothers. A child's diabetes diagnosis is highly stressful, and the multifaceted demands of care can place a considerable burden on caregivers, encompassing physical, psychological, emotional, social, and financial challenges.

Objective: This study aimed to explore the experiences of mothers of children living with type 1 diabetes in Jordan and to gain an in-depth understanding of the attitudes and perceptions that influence parental caregiving behaviors.

Methods: Participants included 60 mothers of children aged 6–16 years, who participated in focus group discussions and support group sessions. In-depth, semi-structured interviews were conducted to explore caregiving experiences, challenges, and coping strategies. Data were analyzed using thematic analysis.

Results: Mothers described initial reactions of shock, pain and distress following their child's diagnosis. Four major themes emerged: (1) Pain and Suffering – navigating difficulties and challenging experiences; (2) Challenge and Personal Effort – assuming responsibility and striving to overcome obstacles; (3) Psychological and Emotional Pressure – the impact of caregiving stress on mental and emotional well-being; and (4) Acceptance and Faith – reconciling with the situation and embracing resignation to fate and God's will.

Conclusion: The current findings highlight the multifaceted burden on mothers and emphasize the need for structured support programs. Professional guidance and culturally sensitive interventions can empower caregivers, enhance coping strategies. Cultural context, particularly fatalistic attitudes toward illness, significantly shapes perceptions and caregiving behaviors, reinforcing the importance of tailored, context-specific support.

3.2.2

Title: The Quest Continues: The Qualitative experiences of Early-Stage T1D project

Authors: Mia Majstorovic[1]; Kelly J McGorm[1,2]; John Wentworth[3,4]; Alyssa Sawyer[1]; Tony Huynh[4]; Melissa Oxlad[1]; Jennifer Couper[1,2]; and the ENDIA Study Group

Presenting Author: Mia Majstorovic[1]
Affiliations: [1]University of Adelaide; [2]Womens and Childrens Hospital; [3]Royal Melbourne Hospital; [4]St Vincents Institute of Medical Research; [5]University of Queensland

Abstract:

Background/Aims: Type 1 diabetes (T1D) is an autoimmune condition in which early, presymptomatic stages are identifiable through screening and monitoring programs. Such programs are being modelled in Australia and internationally. To ensure these initiatives align with the needs and preferences of families involved, we must seek input from children with early-stage T1D and their caregivers. Minimal studies have interviewed children and caregivers on this topic.

Design/Methods: We are employing a qualitative descriptive design. Children aged 9-18 years monitored for increased risk of developing T1D (as indicated by one or more islet autoantibodies), along with their caregivers, are being recruited through Australian first-degree relative cohorts: ENDIA (Environmental Determinants of Islet Autoimmunity) and Type1Screen. We are also recruiting caregivers of children under 9 years old. Online semi-structured interviews are being conducted, and demographic and clinical data collected. Information power will determine the sample size. As of September 2025, we have interviewed 27 children and 40 caregivers.

Planned Analyses: Themes will be inductively developed using Braun and Clarke's reflexive thematic analysis.

Expected Outcomes: N/A (qualitative).

Questions for Discussion:

1. How could the study be improved? To what aspects should the researchers dedicate more attention?
2. What advice does the audience have for translating qualitative findings into clinical practice or policy, especially in the context of monitoring for early-stage T1D?
3. Beyond the QuEST study, what research approaches could enhance our understanding of families' experiences and outcomes in early-stage T1D monitoring?

3.2.3

Title: How are pros and cons of diabetes devices presented online? A qualitative study of website and social media contributions by people with T1D

Authors: Maaike Horsselenberg[1]; Judith Prins[1]; Marianne Boenink[2]; Henk-Jan Aanstoot[3]; Giesje Nefs[1,3,4,5]

Presenting Author: Maaike Horsselenberg[1]

Affiliations: [1]Radboud University Medical Center, Department of Medical Psychology, Nijmegen, The Netherlands; [2]Radboud University Medical Center, IQ Health, Nijmegen; [3]Diabeter, Center for Focused Diabetes Care and Research, Rotterdam; [4]Centre of Research on Psychological Disorders and Somatic Diseases (CoRPS), Department of Medical and Clinical Psychology, Tilburg University, The Netherlands; [5]Diabeter Centrum Amsterdam, Amsterdam, The Netherlands

Abstract:

While insulin pumps and glucose sensors may have glycaemic and quality of life advantages, their disadvantages can lead to non-uptake or discontinuation. Expectations about diabetes devices are increasingly formed online, but it is unclear how pros and cons of devices are currently presented online. We therefore aim to determine how people with type 1 diabetes (PWD) present pros and cons of diabetes devices online.

This qualitative research focuses on existing narratives/contributions related to device attitudes and experiences of PWD from webpages of manufacturers, professional or advocacy organisations and on social media platforms (Facebook, Instagram, TikTok). Creators of personal narratives are privately messaged for an opt-in to use their data. After consent, their narratives are included for analysis.

Two reviewers select narratives until thematic saturation, and independently examine textual and visual information. With qualitative content analysis, themes will be derived from included narratives using open, axial and selective coding.

We expect mostly positive narratives about diabetes technology. Especially narratives from the webpages and social media of manufacturers are likely to be positive. Personal narratives from PWD will pay attention to the disadvantages but will be mainly positive. We believe that people who are open about their diabetes on (public) social media are often also more tech-savvy. We expect most negative narratives in closed groups, which might function as a space for reflection and discussion.

- Are there other reasons why mostly positive narratives can be expected?
- What kind of bias do you expect in the data, based on our approach?

3.2.4

Title: Co-Creation and Development of a Stepped-care Model for Psychological Support for People with T1D

Authors: Christina M Andersen[1]; Julie D Mouritsen[1]; Jori Aalders[1,2]; Tanja Bettina Schmidt[1]; Kathrine Kjaer Hansen[1]; Maria Skov Braugaard[1]; Linn Søndergaard Lindegaard[1]; Sigrid Zimmermann-Nielsen[1]; Gitte Stenholt Horn[1]; Frans Pouwer[1,2]; Mette Juel Rothmann[1,2,3]

Presenting Author: Frans Pouwer[1,2]

Affiliations: [1]Steno Diabetes Center Odense, Denmark, [2]University of Southern Denmark, [3]Deakin University

Abstract:

Aims: This research program aimed to develop a stepped-care model of psychological support for individuals with type 1 diabetes experiencing elevated diabetes distress, in order to enhance diabetes management and improve quality of life.

Design/Methods: A participatory design approach was employed. Interventions were either newly developed or adapted from existing programs based on: (1) a needs assessment, including a systematic literature review and interviews with diabetes psychologists, and (2) co-creation workshops involving people with type 1 diabetes, healthcare professionals, and researchers.

Planned Analysis: Feasibility studies are currently evaluating MyDiaMate-DK (unguided program) and a psychologist-guided online therapy program. A group intervention, led by a psychologist and a diabetes nurse, is being assessed in a randomized controlled trial, and virtual individual counseling has already been implemented in clinical practice. Analyses will focus on acceptability, engagement, and preliminary effectiveness in reducing diabetes distress.

Expected Outcomes: The stepped-care model is anticipated to provide scalable, sustainable psychological support, allowing most individuals to receive effective low-cost interventions while reserving more resource-intensive options for those with greater needs. To enhance diabetes management and quality in life the interventions collectively target key domains of diabetes distress, including emotional burden, physically related distress, and regimen-related distress, and are based on Cognitive Behavioral Therapy (MyDiaMate-DK) and/or Acceptance and Commitment Therapy (other interventions).

Problems/Questions: Challenges include optimizing user engagement across intervention levels, ensuring fidelity in digital and group formats, recruitment, and evaluating long-term effectiveness and cost-efficiency.

3.2.5

Title: The role of Resilience-based Clinical Supervision (RBCS) to enhance the wellbeing of Diabetes Specialist Nurses

Author: Sue Hill[1]

Presenting Author: Sue Hill[1]

Affiliation: [1]Foundation of Nursing Studies, London, UK

Abstract:

Diabetes specialist nursing is advanced practice, requiring high levels of critical decision-making skills, accountability and responsibility. With the rising prevalence of diabetes, pressure on health services continues to grow, yet the emotional toll and burnout among nurses remain under-addressed. To sustain patient care, interventions that promote the well-being and resilience are essential. Meaningful discussions in a safe environment develop supportive relationships.

Regular clinical supervision sessions embody a community approach which can sustain the wellbeing of nursing staff and develop resilience. Resilience-based Clinical Supervision (RBCS), a restorative supervision that supports individual understanding and response to the emotional and psychological demands of their role by considering the emotional regulatory systems, is one approach. Small group sessions allow staff to reflect on their experiences, learn stress management techniques, and support one another in a safe environment.

RBCS fosters "compassionate flow" where staff become more self-compassionate, accept support, and show greater empathy toward patients, contributing to a more positive workplace culture. Individuals develop skills to support their own resilience, while the regular protected time to attend supervision sessions promotes a sense of belonging, validation and courage to change practice.

The Foundation of Nursing Studies has offered an online champion and cascade programme to nurses for 5 years, supporting nurses across various roles. Evaluation indicates that participants strengthen their leadership in supervision and promote a culture of transparency and accountability through the programme.

This presentation will explore the feasibility of extending the programme for diabetes specialist nurses and allied professionals.

Parallel session 4.1 Rapid presentations: Diabetes distress and caring for people with diabetes

4.1.1

Title: Ecological Momentary Assessment of Consecutive Daily Diabetes Distress: When a Single Day of Diabetes Distress Matters

Authors: Laura Yvonne Klinker[1,2]; Andreas Schmitt[1,2]; Dominic Ehrmann[1]; Bernhard Kulzer[1,2]; Norbert Hermanns[1,2]

Presenting Author: Laura Yvonne Klinker[1,2]
Affiliations: [1]Research Institute Diabetes Academy Mergentheim (FIDAM); [2]Diabetes Center Mergentheim (DCM), Germany

Abstract

AIMS: This study examined the relationship between consecutive daily experiences of diabetes distress (DD) assessed via ecological momentary assessment (EMA) and the overall burden of DD operationalized via the Problem Areas in Diabetes (PAID) scale.

METHODS: Participants with diabetes completed 14 days of EMA-surveys and a parallel online survey (PAID). Each evening, nine DD-items were rated on 0-10 Likert-scales ("not at all" – "very much"). The number of consecutive days with DD-items≥5 served as predictors of overall DD in regression analysis. Receiver operating characteristic (ROC) curves were conducted to identify the threshold number of consecutive days with DD-items≥5 required to predict high overall DD(PAID≥40).

PARTICIPANTS: The analysis included 992 participants (♂50.3%, ♀49.5%, ⚥0.2%): 570(57.5%) people had type 1 diabetes, 405(40.8%) type 2 diabetes and 1.7% other types of diabetes. Average age was 50.0±15.8 years; Ø diabetes duration 17.9±12.3 years and Ø PAID 28.4±19.6.

RESULTS: Participants with PAID≥40 showed significantly more consecutive days with DD-items≥5 (Ø 1.1±2.0–3.3±3.6 days) than people with PAID≤40 (Ø 0.3±0.7–1.4±1.9 days; p < .001). In regression analysis, consecutive days feeling "overwhelmed" (ß=.25, p < .001), "alone" (ß=.13, p = .002) and "burned out" (ß=1.5, p = .008) by diabetes contributed most to high PAID-scores. ROC-curves indicated that one day with DD-items≥5 served as best cutoff for predicting high DD (AUC=0.73-0.79; 95%CI: 0.70-0.83).

CONCLUSIONS: According to these findings, already a single day of feeling overwhelmed, alone or burned out may lead to a significant burden of overall DD. Further research should examine the impact of daily hassles.

4.1.2

Title: A New Approach in Measuring Meaningful Diabetes Distress: the Diabetes Distress Diagnostic Checklist (DDCL)

Authors: Andreas Schmitt[1]; Laura Klinker[1]; Dominic Ehrmann[1]; Bernhard Kulzer[1]; Norbert Hermanns[1]

Presenting Author: Laura Klinker[1]
Affiliation: [1]Research Institute of the Diabetes Academy Mergentheim (FIDAM)

Abstract:

Aims: Diabetes distress (DD) is an important diabetes outcome. Several questionnaires are available for its assessment. However, operational definitions and criteria are missing. This causes several problems: DD is operationalised by what each scale assesses, and different items/contents yield heterogeneous results. Cut-off criteria are inconsistent and likely to result screen differently; without a Gold standard measurement, they cannot be standardised. Most scales reflect “diabetes problems” rather than burdens, which may question validity. Finally, it remains unclear which elevated level of DD may require treatment. We developed a tool for assessing clinical DD.

Methods: The development based on the following ideas: diabetes “burdens”–not “problems”–should be captured; major burdens should be capture exhaustively; clinical DD should be defined by distress and impairment criteria. Key burden areas were defined reviewing the literature, scales‘ items and item clusters. For each area, one question was designed in a checklist format (“Do you experience ...?”–No/Yes), followed by a 3-point burden scale (0=not at all–2=very much). Another section requests distress and impairments. The checklist can be used as self-report or interview tool.

Participants: 826 participants of the dia:link panel answered the questions.

Results: Scale consistency was high (ω=0.91). Convergent correlations supported validity. Of 826 respondents, 16% reported to experience “some”, 17% “considerable” and 5% “very much” distress from diabetes burdens; 21% reported “some”, 10% “considerable” and 2% “very much” functional impairment.

Conclusions: We present a new tool that can help capture clinical DD, supporting research and clinical practice.

4.1.3

Title: A rapid realist review of group-based interventions to reduce diabetes distress in adults with T1D

Authors: Sarah Sims[1]; Ruth Harris[1]; on behalf of the Optimising the Delivery of Diabetes Distress-Informed Care for its Prevention, Detection; Management in Adults with Type 1 Diabetes: A Hybrid Effectiveness-Implementation Programme (D-STRESS) Study Team

Presenting Author: Jackie Sturt[1]

Affiliation:[1]Kings College London

Abstract:

Aims: This rapid realist review (RRR) explored how, why, for whom, and under what circumstances group-based interventions reduce elevated diabetes distress in adults with type 1 diabetes. The findings support the design of a co-adapted intervention to reduce elevated diabetes distress in adults with type 1 diabetes in the UK.

Methods: Following established RRR methods, evidence was drawn from 27 publications relating to two existing group-based diabetes distress interventions and the psychological and social theories that underpin them. Data were examined to identify relevant contexts, mechanisms, and outcomes of the interventions.

Participants: The review process was informed by ongoing input from stakeholders, including adults with type 1 diabetes, healthcare professionals, methodological experts and intervention developers.

Results: The analysis generated seven initial programme theories expressed in 20 “If–Then–Because” statements. Initial theories highlighted the central role of emotional regulation, peer support and person-centred facilitation in reducing diabetes distress. Other initial theories included regular assessment and follow-up, motivation for action, and empowerment in self-management. Interventions proved most beneficial when participants felt respected, emotionally safe and listened to, and when group facilitators adopted collaborative rather than directive communication styles. Outcomes were shaped by contextual influences such as group composition, facilitator expertise and participants’ readiness for change.

Conclusion: Group-based interventions to reduce elevated diabetes distress operate through multiple, interacting mechanisms shaped by context, rather than a single causal pathway. These insights provide a theoretical basis to inform the design, delivery, and evaluation of a new diabetes distress reduction intervention in the UK.

4.1.4

Title: Investigating the relationship between diabetes distress and diabetes-related ketoacidosis in young adults with T1D

Authors: Isha Singh[1]; Rickie Myszka[1]; Gary K. Low[2]; Emily J Hibbert[3]

Presenting Author: Emily Hibbert[3]
Affiliations: [1]Department of Endocrinology, Nepean Hospital, Sydney, Australia; [2]Nepean Blue Mountain Local Health District, Sydney, Australia; [3]Nepean Clinical School, Sydney Medical School, Faculty of Medicine and Health, University of Sydney, Australia

Abstract:

Background: The transition period from paediatric to adult type 1 diabetes mellitus (T1DM) care can be challenging due to demands of self-management, changing life stages and risk of diabetes-related ketoacidosis (DKA). This combined psychosocial burden is defined as diabetes distress (DD). Our retrospective study aimed to investigate the temporal association between DKA and DD in adolescents and young adults, and to identify predictors of DD and DKA.

Methods: Data was collected on patients with T1DM aged 15 to 26 years attending a tertiary hospital diabetes transition clinic over 7 years. DD was defined as a Problem Areas in Diabetes questionnaire score ≥40. Statistical analysis was performed using StataBE v18.0.

Results: 300 patients (49.7% female) were followed for a median of 2.6 years (IQR 1.5-4.3). Multivariable Poisson regression demonstrated a 2.09-fold increase (95%CI 1.31-3.33, p=0.002) in incidence of DKA over the subsequent year in those with high DD compared to those without high DD. Similarly, for each 10-point increase in PAID score, there was a 1.17-fold increase (95%CI 1.05-1.31, p=0.004) in the incidence of DKA over the subsequent year. A statistically significant association between DKA incidence and subsequent DD development, however, was not found. Both DKA and DD were positively associated with Depression and Anxiety Stress Scale 21 (DASS-21) score and Haemoglobin A1c (HbA1c) but inversely associated with age.

Conclusion: This study identified a temporal relationship between developing DD and subsequently developing DKA with no reverse causality. Longitudinal analyses support DASS-21, HbA1c and age as predictors of both DD and DKA.

4.1.5

Title: The impact on families requiring a mobile phone as a medical device in the management of T1D

Authors: Kirsty Browne-Cooper[1]; Liz Davis[1]; Craig Taplin[1]

Presenting Author: Kirsty Browne-Cooper[1]
Affiliations: [1]Perth Children's Hospital, Western Australia

Abstract:

Background / Aims: Advances in diabetes technology, including continuous glucose monitoring (CGM) and insulin pump therapy, now require many children with Type 1 Diabetes (T1D) to use a mobile phone as a medical device. This early access to mobile phones contrasts with typical parental strategies to delay phone ownership and limit screen time. The project aimed to explore the impact of this requirement on families and patients, assess current practices at Perth Children's Hospital (PCH), and identify opportunities to improve digital safety support.

Method: Four groups were surveyed: parents of children newly diagnosed with T1D, patients aged 8–17 years, staff from the PCH Endocrinology and Diabetes team, and national social work and psychology clinicians. Parent data were collected via a Redcap survey (n=26/241, 10%); patient interviews were conducted in outpatient clinics (n=14). Staff completed an online survey (n=23/70), and national professionals provided input during a SWAP meeting (n=12).

Results: Sixty-one percent of parents and 78% of patients reported that a mobile phone was provided earlier than planned. Thirty percent of parents identified increased screen time as a negative impact, while 86% of patients reported physical or practical challenges associated with keeping the phone within 6 metres. Sleep disturbance was noted by 60% of patients. Staff reported inconsistent approaches to supporting digital safety; 97% expressed interest in further training.

Discussion: Findings highlight significant emotional, developmental and practical impacts associated with requiring a mobile phone for diabetes management. Families expressed a need for clearer guidance, and staff identified gaps in education and resources. Implementing consistent digital safety messaging, staff training, and improved patient resources may enhance support for families navigating technology recommended for T1D care.

4.1.6

Title: Talking about T1D: Understanding adolescents' needs to have confident conversations

Authors: Keely Bebbington[1]; Asha Parkinson[1]; Jeneva Ohan[1,2]

Presenting Author: Keely Bebbington[1]
Affiliations: [1]The Kids Research Institute Australia; [2]The University of Western Australia

Abstract:

Background and Aims: Diabetes-related stigma is an issue that significantly impacts young people living with type 1 diabetes (T1D). A 2023 international consensus statement on ending diabetes-related stigma, highlighted an urgent need for strategies to support people living diabetes in talking with others about their diagnosis. In this study, we aim to understand the concerns, experiences, and support needs of adolescents with T1D in disclosing their diabetes to others, to inform future strategies for supporting confident disclosure.

Methods: This is a qualitative interview study of adolescents living with T1D. Topics included experiences in disclosing/concealing their diagnosis, their goals in relation to talking with others about diabetes and their support needs when considering disclosure. Data was analysed inductively using reflexive thematic analysis.

Participants: Data collection is ongoing. To date, 13 adolescents aged 13-17 years (10 females, 3 males; mean age = 14.4 years) have completed interviews. Targeted recruitment of males is being used to enrich our understanding of their disclosure experiences and concerns.

Results: Preliminary analysis shows that disclosure is often prompted by the perceived need to explain behaviour that might otherwise be seen as unusual. Many young people expressed concerns about being treated differently and highlighted a desire for peers not to 'make a fuss' of their diabetes. Several recommendations for the develop of resources to support disclosure were made.

Conclusions: This foundational study will inform the development of resources and/or interventions to promote confident disclosure of diabetes for adolescents living with T1D.

4.1.7

Title: Diabetes Distress in Adults with T1D and Their Relatives: Personality Correlates, Chronic Complications, and a Theoretical Link to Complex PTSD

Authors: Judita Konečná[1]; Nelly Kalinová[2]; Karel Dobroslav Riegel[3]

Presenting Author: Judita Konečná[1]
Affiliations: [1]2nd Department of Internal Medicine, St Anne's University Hospital, Brno, Czech Republic; [2]3rd Department of Medicine Department of Endocrinology and Metabolism, 1st Faculty of Medicine, Charles University and General University Hospital in Prague, Prague, Czech Republic; [3]Department of Addictology, 1st Faculty of Medicine, Charles University and General University Hospital in Prague, Prague, Czech Republic

Abstract:

Aims: To validate the Czech version of the Diabetes Distress Scale for parents (DDS-parent) and to examine associations of diabetes distress (DD) with maladaptive personality traits and chronic complications in adults with type 1 diabetes (PWT1D) and their relatives.

Methods: The study consisted of two phases. In Phase 1, 219 adults with type 1 diabetes completed the Diabetes Distress Scale (DDS) and the Personality Inventory for DSM-5 (PID-5). In Phase 2, 122 additional adults with type 1 diabetes completed the same measures and the PHQ-9. Across both phases, the combined PWT1D sample (N = 341) included 59.4% women, mean age 40.39 years (SD = 13.59). In Phase 2, 106 parents and 31 partners completed the DDS-parent or DDS-partner. Psychometric analyses were performed for the DDS-parent; the DDS-partner could not be validated due to low response numbers.

Results: The DDS-parent showed good psychometric properties, with Cronbach's alpha ranging from .81 to .91 and acceptable fit (CFI = .95; RMSEA = .07). Elevated DD (≥ 2) was reported by 54.2% of PWT1D, 17.9% of parents, and 9.7% of partners. In PWT1D, DD correlated with maladaptive personality traits, including negative affectivity (r = .52), depressivity (r = .54), anxiousness (r = .50), and emotional lability (r = .46). Elevated DD predicted chronic complications (OR = 2.24), and maladaptive personality traits also increased complication risk (ORs = 1.47–1.87). Parents similarly reported DD associated with depressive symptoms.

Conclusions: DD affects both adults with T1D and their relatives. Maladaptive personality traits further contribute to poorer clinical outcomes. These findings align with transdiagnostic stress-regulation models and resonate with theoretical links to complex PTSD, underscoring the need for trauma-informed, family-oriented psychosocial care in T1D.

4.1.8

Title: Considering communities of care when designing care plans: A secondary analysis of diabetes encounters in the US and the Netherlands

Authors: Anka van Gastel[1,2] Victor Montori V[2]; Felipe Larios[2]; Victor M Montori[2]; Marleen Kunneman[3]

Presenting Author: Anka van Gastel[1,2]
Affiliations: [1]Leiden University Medical Center; [2]Mayo clinic; [3]Health Campus the Hague

Abstract:

Aim: To examine how patients' care communities (e.g, partner, family, friends), their roles, and the impact of care on them are addressed in patient-clinician care planning.

Methods: We are conducting a secondary analysis of audio(-visually) recorded encounters from two prior studies. Using a structured coding framework, we classified whether and how care community issues are addressed (absent, mentioned, or discussed) across domains of roles and impact (20 items). We also coded conversation initiators, references to care community agents, and whether these issues are explicitly integrated into care plan design.

Population: Adult patients with diabetes attending routine outpatient consultations at (1) a US federally qualified health center (English/Spanish speaking), or (2) a Dutch academic medical center (Dutch speaking), and their diabetes clinicians (physicians, residents, diabetes nurses).

Results: Our dataset includes 188 recorded encounters (US: N=143; NL: N=45). Encounter coding indicates that N=61 encounters (32%) included discussion of one or more care community issues (US: 33/143, 23%; NL: 28/45, 62%). A total of N=121 care community conversations were coded (US: 47/121, 38%; NL: 74/121, 61%), which mostly related to the domains lifestyle support (N=29; 24%), medication management (N=14; 12%) and hypoglycemia management (N=13; 11%). Analysis is ongoing and will be completed early October 2025.

Conclusion: This study clarifies how patients and clinicians discuss the informal care communities that support diabetes self-care and how these are considered in care planning. By identifying current practice patterns and opportunities for improvement, this work aims to inform strategies for more collaborative, context-aware, and better-fitting diabetes care.

4.1.9

Title: What aspects of Enhanced Usual Care for reducing Diabetes Distress work, for whom, in what circumstances and why? A rapid realist review.

Authors: Ruth Harris[1]; Sarah Sims[1]; on behalf of the Optimising the Delivery of Diabetes Distress-Informed Care for its Prevention, Detection (D-Stress) study team

Presenting Author: Jackie Sturt[1]
Affiliation: [1]King's College London

Abstract:

Aims: 'Enhanced Usual Care' (EUC) is a newly designed intervention in which healthcare professionals (HCPs) routinely assess diabetes distress (DD) and use the results to guide clinical conversations with adults with type 1 diabetes (T1D). This rapid realist review (RRR) examined how, why, for whom, and under what circumstances EUC might help detect and manage DD in adults with T1D in the UK healthcare system.

Methods: Following established RRR methods, data were synthesised from 36 publications reporting approaches and interventions for assessing and discussing DD in routine diabetes care. Context–mechanism–outcome configurations were developed to explore how EUC processes operate across diverse settings and participants.

Participants: The RRR process was informed by input from adults with T1D, carers, HCPs, methodological experts and intervention developers.

Results: Analysis generated eight initial programme theories and 19 "If–Then–Because" statements. Key theories emphasised the importance of EUC normalising emotional health as part of routine diabetes care, increasing recognition of DD and facilitating early intervention. This included structured screening processes, preparation for consultations and continuity of discussion across appointments. EUC was most effective when HCPs were trained in interpreting DD scores, referral pathways were clear, and sufficient time was available for discussion. Outcomes were enhanced when adults with T1D felt understood and able to raise priorities for discussion.

Conclusion: EUC integrates emotional and psychosocial support into routine diabetes care. These insights provide a practical, theory-driven framework for EUC to address DD, offering a foundation for its adaptation and evaluation in the UK context.

Parallel session 4.2 Rapid presentations: Measurement, management and medication taking

4.2.1

Title: Associations between illness belief dimensions, illness clusters, health and well-being indicators among adults with type 2 diabetes: findings from the PREDICT cohort study

Authors: Timothy Skinner[1,2]; Jane Speight[1,2]; Elizabeth Holmes-Trustcott[1,2]; Irene Blackberry[3]; Jonathan Shaw[4]; Julian Sacre[4]; Dianna Magliano[4]

Presenting Author: Timothy Skinner[1,2]
Affiliations: [1]ACBRD; [2]Deakin University; [3]La Trobe University; [4]Baker Heart and Diabetes Institute

Abstract:

Background: The Common Sense Model posits that illness beliefs form distinct clusters and these are associated with self-care and well-being, but few studies have examined this. Therefore, we tested this hypothesis in a large diabetes cohort.

Methods: Participants of the PREDICT cohort study completed self-reported validated measures of illness beliefs (Brief IPQR), depressive symptoms (PHQ), anxiety symptoms (GAD), diabetes distress (PAID), self-care and provided biomedical data, including HbA1c at baseline recruitment.

Results: 1,546 participants with type 2 diabetes (37% female, mean 65 years old, median 11 years diabetes duration), were found to form four clusters: Resigned (20%), Adapters (28%), Symptomatic (28%), Acute (14%). Adapters had lower BMI, HbA1c, diastolic blood pressure, cholesterol, diabetes distress, depressive and anxiety symptoms, and had higher HDL and were more active than all other clusters. The Symptomatic cluster were diagnosed younger, had diabetes longer, more likely to be taking insulin, have had foot ulcers/amputation, had more depressive and anxiety symptoms with greater diabetes distress but drank less alcohol. Regression analysis indicated illness beliefs were more strongly associated, with self-care, health and well-being indicators than was cluster membership.

Conclusions: Adults with type 2 diabetes can be categorized into distinct clusters of illness beliefs, but individual beliefs are better predictors of self-care and well-being.

4.2.2

Title: Depression and Diabetes Distress are main drivers of Health-Related Quality of life

Authors: Norbert Hermanns[1,2]; Berndhard Kulzer[1,2;] Dominic Ehrmann[1,2]

Presenting Author: Norbert Hermanns[1,2]
Affiliations: [1]FIDAM; [2]Bad Mergentheim, Germany

Abstract:

Introduction: Diabetes is associated with impairments in health-related quality of life (HRQoL). While biomedical complications are established contributors, the relative role of psychological outcomes is less well understood. This study targeted independent predictors of HRQoL in people with diabetes and explored the potential of psychological outcomes as mapping variables for utility estimation.

Methods: Between September 2024 and February 2025, 734 adults with diabetes (mean age 56.3 ± 14.5 years, 54% female, 73% type 1 diabetes) participated in an online and clinic-based survey in Germany. Participants completed the EQ-5D-5L, PHQ-8, PAID questionnaire, and HFS. EQ-5D utilities were analyzed with univariate and blockwise multivariate Tobit regressions, sequentially including demographic, diabetes-related, medical, and psychological predictors.

Results: Mean EQ-5D utility was 0.85 ± 0.20. In univariate analyses, type 2 diabetes (–0.10), higher BMI (–0.06 per SD), severe hypoglycemia (–0.10), neuropathy (–0.20), diabetes-related foot syndrome (–0.21), cardiovascular disease (–0.10), and depressive symptoms (–0.15 per SD) were associated with lower HRQoL (all $p < 0.01$). In multivariate models, older age (–0.03 per SD), higher BMI (–0.03), neuropathy (–0.11), diabetes-related foot syndrome (–0.05), and depressive symptoms (–0.14) remained independent predictors. Psychological factors contributed an additional 32% explained variance.

Conclusions: Depressive symptoms emerged as the strongest independent predictor, exceeding biomedical complications such as neuropathy. This highlights the central role of mental health in diabetes care and underscores the potential of depressive symptoms and diabetes distress as key variables for mapping HRQoL utilities in health economic evaluations.

4.2.3

Title: Community co-design: Exploring the barriers to T2D medication use, preferred resource types and delivery

Authors: Stephanie Lamev[1]; Kelly Harris[1]; Sophie McGough[1]

Presenting Author: Stephanie Lamev[1]
Affiliation: [1]Diabetes WA

Abstract:

Aim: The Diabetes WA Quality Use of Medicines project contributes to the National Strategy for Quality Use of Medicines. It aims to co-design digital and animated resources that support diabetes medication self-management. A national survey was conducted to identify practical and perceptual barriers to medication use among people living with type 2 diabetes, preferred resource formats, and access channels.

Methods: The survey was distributed nationally to adults with type 2 diabetes, who subscribed to Australian diabetes organisation newsletters. Data was collected from May 21 to June 20, 2025, from 783 respondents living in Australia. Data were analysed using frequencies and crosstabulations in Qualtrics.

Results: Forgetting medication was a common reason for skipping, missing, or delaying doses, while side effect concerns were a common reason for stopping medication without consulting a doctor or choosing not to start a recommended medication. Additional barriers identified included concerns about injectable medications, poor mental health, negative feelings about having diabetes or taking medication, and practical issues such as cost and availability. Resource preferences included short videos featuring real people with type 2 diabetes and self-paced online learning programs. Preferred access points included GP practices, pharmacies, and other sources.

Conclusions: The survey identified a range of practical and perceptual barriers to medication use. These insights will guide the development of digital resources tailored to community needs and preferences, with the goal of supporting medication use and self-management.

4.2.4

Title: Guided Self-Determination: A co-designed self-management program for Aboriginal and Torres Strait Islander people living with T2D

Authors: Bodil Rasmussen[1]; Cath McNamara[1]; Nic Lister[1]; Deb Kerr[1,2]; Tanya Druce[1,2]

Presenting Author: Bodil Rasmussen[1]; Tim Druce
Affiliations: [1]Deakin University; [2]Western Health

Abstract:

Aims: The incidence of diabetes is 2.8 times higher, and the rate of death from diabetes is 4.7 times higher, among Indigenous people compared with non-Indigenous Australians. The Guided Self-Determination (GSD) approach empowers people living with diabetes by facilitating person-centred, reflective conversations to manage their diabetes, and improve their quality of life. We aimed to develop a culturally tailored GSD program to improve diabetes self-management and well-being in an Aboriginal context.

Methods & Participants: The content, language, format, artwork, and guidelines for the use of the GSD program were reviewed and refined via two co-design workshops with Aboriginal people with lived experience of type 2 diabetes and health care practitioners working in this field.

Results: The workshop participants highlighted the importance of tailoring communication methods to fit the cultural and linguistic context of Aboriginal and Torres Strait Islander people. Modifying the program to use familiar language, drawings, symbols, and Indigenous artwork was considered a collective and negotiated design. Three key features were identified: Indigenous language - using familiar terms such as ‘yarning’, which conveys a deeper emotional connection than simple ‘conversation’; Acknowledging successful diabetes management - changing the focus from medical problems to wellbeing and success; and Mind mapping - documenting the experience of living with diabetes to tailor discussion about diabetes management.

Conclusions/Discussion: Yarning became central to the redesigned GSD program fostering more reflective and purposeful decision-making in self-management. Worksheets can be incorporated into the education programs for people with diabetes and promote two-way, patient-centred communication.

4.2.5

Title: Diabetes distress occurs frequently in people with diabetes-related foot ulcers and is associated with higher glycemic outcomes

Authors: Jessica A Marathe[1,2,3]; Md Kamruzzaman[1,4,5]; Elham Hosseini-Marnani[1,4]; James D Triplett[1,4,6]; Sonja Rogasch[7]; Cathy Loughry[7]; Michael Horowitz[1,4,8]; Karen L jones[1,4,8]; Chinmay S Marathe[1,4,8]

Presenting Author: Jessica A Marathe[1,2,3]
Affiliations: [1]Adelaide Medical School, University of Adelaide, Australia; [2]Department of Cardiology, Royal Adelaide Hospital, Adelaide, Australia; [3]Lifelong Health Theme, South Australian Health and Medical Research Institute, Australia; [4]Centre of Research Excellence in Translating Nutritional Science to Good Health; [5]Dept of Applied Nutrition and Food Technology, Islamic University, Kushtia, Bangladesh; [6]Department of Neurology, Southern Adelaide Local Health Network, Australia; [7]Department of Podiatry, Royal Adelaide Hospital, Australia; [8]Endocrine and Metabolic Unit, Royal Adelaide Hospital, Australia

Abstract:

Aims: Diabetes distress (DD) impacts diabetes self-care but has been sub-optimally studied in those with diabetes-related foot ulcers (DFU). We aimed to evaluate the association between DD and glycaemic outcomes in people with DFU.

Methods: Participants completed a validated questionnaire for DD (DDS-17), where a score of ≥2 for DD is considered indicative of DD and wore a blinded version of continuous glucose monitoring (CGM, Freestyle Libre Pro) sensors for 14 days. The R package "iglu" and EasyGV (EasyGV v9.02 R2) were used to calculate indices of glycaemic variability (as listed in the table).

Participants: 24 unselected individuals with type 2 diabetes and DFU (M/F 19/5, mean age 67.6±2.6 years, duration of known diabetes 20.7±3.7 years, BMI 31.0±1.1kg/m2 and HbA1c 8.8±0.6%) attending high-risk foot clinics in Adelaide, South Australia.

Results: Mean DD score was 1.6±0.1 in the cohort, and seven (29.2%) participants had DD. Mean blood glucose ($P<0.001$), GMI ($P<0.001$), TIR ($P=0.003$), TAR ($P=0.007$), CONGA ($P<0.001$), MAGE ($P=0.001$), eA1c ($P<0.001$) and AUC ($P<0.001$) were worse in those with DD (Table). DD score correlated positively with average blood glucose ($R=0.66$, $P<0.001$), GMI ($R=0.66$, $P<0.001$), CONGA ($R=0.64$, $P<0.001$), MAGE ($R=0.64$, $P<0.001$) and TAR ($R=0.61$, $P<0.01$), while TIR was negatively associated ($R=-0.62$, $P<0.01$).

Conclusion: In people with type 2 diabetes and DFU, DD occurs frequently and is associated with worse glycemic control. The potential impact of reducing DD on foot ulcer healing and glycemic outcomes warrants evaluation.

4.2.6

Title: Food insecurity and continuous glucose monitoring indices in Indigenous Australians

Authors: Md Kamruzzaman[1,2,3]; Tina Brodie[4]; Tom Wycherley[5]; Michael Horowitz[1,2]; Jessica A Marathe[1,7,8]; Natasha Howard[1]; Karen L Jones[1,2,6]; Chinmay S Marathe[1,2,6]

Presenting Author: Chinmay S Marathe[1,2,6]
Affiliations: [1]Adelaide Medical School, University of Adelaide, SA, Australia; [2]Centre of Research Excellence in Translating Nutritional Science to Good Health; [3]Dept of Applied Nutrition and Food Technology, Islamic University, Kushtia, Bangladesh; [4]Aboriginal Leadership and Strategy Chancellery and Council Services, University of South Australia, Australia; [5]Exercise and Sport Science Portfolio UniSA Allied Health & Human Performance; [6]Enndocrine and Metabolic Unit, Royal Adelaide Hospital, SA, Australia; [7]Department of Cardiology, Royal Adelaide Hospital, Adelaide, Australia; [8]Lifelong Health Theme, South Australian Health and Medical Research Institute, Australia

Abstract:

Aim: Food insecurity (FIS) in Indigenous Australians is disproportionally higher (25% vs. 5% in Caucasian Australians) and can elicit powerful behavioral and psychological responses, that may worsen diabetes-related outcomes. We compared continuous glucose monitoring (CGM) indices between Indigenous Australians with T2D with and without FIS and food secure (FS) Caucasians with T2D.

Methods: Participants completed a validated questionnaire (USDA-18), where a score of ≥3 was considered to indicate FIS. Blinded continuous glucose monitoring (CGM) (Abbott Freestyle Libre Pro) sensors were placed between 14 to 28 days to capture glycemic excursions across the fortnightly pay cycles. CGM indices 72h before and after each individual's pay date and compared among FIS and FS Indigenous and FS Caucasian Australians. Independent sample t-test or Wilcoxon was used to compare CGM indices before and after the pay date. Results are shown as mean with 95%CI.

Participants: 22 Indigenous Australians (18 female, mean age: 53.8±2.6 years, BMI 35.3±2.9kg/m2; duration of known diabetes 10.2±2.1 years, HbA1c 8.1±0.6%]) from an Aboriginal Community Controlled Health Organisation and 31 Caucasians (14 female, mean age: 65.3±1.9 years, BMI: 33.1±1.2 kg/m2; duration of known diabetes 11.0±1.4 years, HbA1c: 7.1±0.4%) from community clinics in South Australia.

Results: Overall, CGM indices were worse in FIS Indigenous compared with controls. However, CGM indices before and after payment dates were not significantly different between FIS Indigenous, FS Indigenous and FS Caucasian.

Conclusion: In FIS Indigenous Australians, though overall CGM indices were worse than FS Caucasian, they were not different around payment dates.

4.2.7

Title: Modified Distress Scale (mDDS): A Novel Instrument for Assessing Emotional Distress and Treatment Compliance in Diabetes Mellitus - A Cross-Sectional Multicenter Study from India

Authors: Firdous Shaikh[1,2]; Kamran Khan[3]

Presenting Author: Firdous Shaikh [1,2]
Affiliations: [1]Jyoti Clinic; [2]FRS Diabetes and Obesity Management Research Centre; [3]Nidan Kutir Diabetes Centre

Abstract:

Background and Objectives: Diabetes distress is the emotional burden associated with managing diabetes, affecting medication taking and outcomes. It differs from formal psychiatric disorders but significantly impacts the well-being of people living with diabetes. This study introduces a Modified Distress Scale (mDDS), an enhanced tool expanding the existing DDS-17 by including culturally relevant socio-religious dimensions to comprehensively assess emotional distress in the Indian context.

Methods: A cross-sectional survey of 500 adults with Type 1 and Type 2 diabetes was conducted across four Indian regions (Bhagalpur, Mumbai, Bengaluru, and Raipur). People living with diabetes were selected through convenience sampling and assessed using the 20-item mDDS questionnaire, addressing emotional burden, physician distress, regimen distress, interpersonal distress, and socio-religious factors. Scores categorized distress as mild (25–45), moderate (46–70), or high (71–100). Medication taking and glycemic outcomes (HbA1c) data were also collected.

Results: Participants' mean age was 44 ± 13.3 years, with diabetes duration averaging 1.5 years and baseline HbA1c of 9.2 ± 2.1%. The average distress score was 25 ± 0.6, indicating mild distress overall. Sixty-four percent reported moderate to high distress levels ($p < 0.001$). Low distress scores prompted further investigation into management through questionnaire patterns and HbA1c values. Post-intervention, significant improvement in HbA1c to 6.7 ± 1.0% was observed ($p < 0.001$).

Conclusion: These findings establish the mDDS as a culturally sensitive instrument for identifying diabetes distress and its influence on medication taking. The tool's integration into clinical practice could enhance psychosocial support and optimize diabetes management outcomes.

4.2.8

Title: Psychosocial and behavioural outcomes of the SIHAT telehealth pilot program for people with T2D in Malaysia

Authors: Jessica Watterson[1,2]; Badariah Ahmad[2]; Nurul 'Aqilah binti Hasan Ashaari[3]; Catherine Liz Estor[2]; Vicki Sam[2]

Presenting Author: Jessica Watterson[1,2]
Affiliations: [1]Deakin University; [2]Monash University Malaysia; [3]DoctorOnCall

Abstract:

Aims: Telehealth has shown promise in improving diabetes outcomes by reducing HbA1c, but fewer studies have explored its psychosocial effects. This mixed-methods study evaluated health, behavioural, and psychosocial outcomes of a pilot telehealth intervention for people with Type 2 diabetes in Kuala Lumpur, Malaysia.

Methods: 100 participants received a tablet with the Health2Sync app, a smart glucometer, and a blood pressure (BP) monitor. Optional features included meal tracking and dietician guidance. Participants recorded blood glucose five times daily for at least six days in the two weeks before quarterly telehealth appointments. HbA1c, body mass index (BMI), and BP were measured in-person at baseline and 12 months. Surveys at baseline and 18 months assessed diabetes-related distress, self-care activities, and self-rated health status. Semi-structured interviews were conducted with nine participants.

Participants: 77 participants completed the 18-month program. 57% were female, with a mean age of 51.1 (SD=11.6), and represented diverse ethnicities (Malay, Chinese, Indian, Kadazan).

Preliminary Results: Most diabetes self-care activities significantly improved. Self-rated health status increased from 2.52 to 2.84 (out of 5; $p=0.03$). Possible diabetes-related distress (PAID-5 ≥ 8) decreased from 87% to 59%. HbA1c improved from a mean of 8.68 at baseline to 7.42 at 18 months ($p<0.001$). Interviewees reported improved knowledge and awareness, though some faced structural and environmental barriers to behaviour change.

Conclusion: Preliminary findings suggest the program is associated with improvements in self-care behaviour, diabetes-related distress, and perceived overall health.

Parallel session 5.1 Completed work: Diabetes and socioeconomic challenges

5.1.1

Title: The association of socioeconomic status and diabetes-related neuropathy in South Asians with T2D

Authors: Chinmay S Marathe[1,2,3]; Md Kamruzzaman[1,2,4]; Jessica A Marathe[1,5,6]; Michael Horowitz[1,2,3]; Karen L. Jones[1,2,3]

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Affiliations: [1]Adelaide Medical School, University of Adelaide, SA, Australia; [2]Centre of Research Excellence in Translating Nutritional Science to Good Health; [3]Endocrine and Metabolic Unit, Royal Adelaide Hospital, SA, Australia; [4]Dept of Applied Nutrition and Food Technology, Islamic University, Kushtia, Bangladesh; [5]Department of Cardiology, Royal Adelaide Hospital, Adelaide, Australia; [6]Lifelong Health Theme, South Australian Health and Medical Research Institute, Australia

Abstract:

Aims: Studies, from mostly Caucasian populations, have reported that diabetes-related foot peripheral neuropathy (DPN) represents a substantial burden on the most socio-economically disadvantaged groups impacting diabetes care. This relationship, however, has not been optimally studied in South Asian countries with considerably lower per-capita incomes and high prevalence of diabetes. We evaluated the relationships between DPN and socio-economic parameters in a community setting in Bangladesh.

Methods: Participants completed validated questionnaires for diabetes-related foot peripheral neuropathy symptoms (MNSI-Q) and clinical examination (MNSI-CE), where score of ≥7 and ≥2.5, respectively, were considered to indicate neuropathy and compared with socio-economic parameters such as gender, area of residence, education status, marital status and annual income.

Participants: 523 unselected individuals (T2D: N = 253, female: 63.2%, mean age: 51.0±0.70 years, BMI: 24.6±0.19 Kg/m2, waist circumference: 90.6±0.54 cm, duration of known diabetes: 6.3±0.33 years, random blood glucose: 12.5±0.36 mmol/L and non-diabetes-related foot 'controls': N = 270, females: 47.8%, mean age: 42.3±0.79 years, BMI: 24.1±0.19 Kg/m2, waist circumference: 87.7±0.53 cm, random blood glucose: 6.5±0.13mmol/L) were recruited from the community in Bangladesh.

Results: Overall, individuals with T2D reported higher prevalence of peripheral neuropathy symptoms (43.1 vs 7.8%, P<0.001) and clinical examination (24.9 vs 7.0%, P<0.001) compared to controls. In both T2D and controls, prevalence of peripheral neuropathy symptoms was higher in females, rural dwellers, low education status, lower per capita income and among single/divorced/widowed.

Conclusions: Diabetes-related foot peripheral neuropathy is a substantial burden in socio-economically deprived groups in South Asia. Interventions addressing the socio-economic gap may also benefit diabetes-related care.

5.1.2

Title: Food insecurity and diabetes distress in South Asia: exploring a causal relationship by g-computation analysis

Authors: Chinmay S Marathe[1,2,3]; Md Kamruzzaman[1,2,4]; Kylie Lange[1,2]; Jessica A Marathe[1,5,6]; Karen L Jones[1,2,3]; Michael Horowitz[1,2,3]

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Abstract:

Aims: Food insecurity (FIS) impacts 25% of the population in South Asian countries like Bangladesh, elicits strong psychological responses that impair diabetes care and, are intuitively, likely to contribute to diabetes distress (DD). We evaluated the causal relationship between FIS and DD in people with type 2 diabetes (T2D) in Bangladesh.

Methods: 1256 unselected individuals with T2D (58% female, mean age 51.2±0.4years, BMI 24.7±0.1kg/m2, duration of diabetes 7.3±0.2years and HbA1c of 9.8±0.1% [83.8±1.1mmol/mol]). attending diabetes clinics across 4 districts of Bangladesh completed validated questionnaires: USDA-18 (≥3 indicative of FIS). DDS-17 (scores of ≥2 indicative of moderate, and ≥3 of severe, diabetes distress). The g-computation method was employed to estimate the average causal effect of FIS on DD, while controlling for financial status and location (rural or urban). Results are presented as mean (or median) ± SE and percentages.

Results: 35% of participants reported FIS, while 50% reported DD (11% severe DD). HbA1c levels were higher in individuals with DD (10.4±0.2 % vs 9.3±0.1%, P<0.001) and FIS (10.2±0.2% vs 9.6±0.1%, P<0.001). DD was greater in those with FIS compared to those without FIS (median: 2.24±0.03 vs 1.82±0.02, P<0.001). The estimated average causal effect of FIS on the DD score was substantial, 0.40 (95%CI: 0.28-0.52, P<0.001), representing the estimated increase in the DD score due to FIS.

Conclusion: FIS appears to increase DD in people with T2D and should be regarded as a potential contributor to DD in South Asia.

5.1.3

Title: Co-existence of food insecurity and abdominal obesity in people with T2D from South Asia is associated with glucose levels outside of target range.

Authors: Md Kamruzzaman[1,2,3]; Jessica A Marathe[1,4,5]; Michael Horowitz[1,2,6]; Karen L Jones[1,2,6]; Chinmay S Marathe[1,2,6]

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Abstract:

Aims: Food insecurity (FIS) not infrequently co-exists with abdominal obesity (the so-called 'food insecurity-obesity paradox') and associated with poor glycemic control. We evaluated the impact of co-existence of FIS and obesity on glycemic control in South Asians with T2D.

Materials and methods: 1141 unselected individuals with T2D (60.1% female, mean age: 50.9±0.31 years, Waist Circumference (WC): 89±0.29 cm, WHR: 0.94±0.00, BMI: 24.7±0.09; duration of known diabetes 7.1±0.18 years, HbA1c 84.1±1.0 mmol/mol [9.8±0.09%]) attending specialized diabetes clinics in four districts in Bangladesh, completed a validated questionnaire to assess FIS (USDA-18), where score of ≥3 was considered to indicate FIS, and demographic, anthropometric, clinical and biochemical information was obtained. A WC of ≥90cm in males and ≥80cm in females was considered to indicate abdominal obesity. Results are shown as mean±SEM.

Results: Overall, 35.8% of participants reported FIS and 70.8% had abdominal obesity; 25.7% had both FIS and abdominal obesity. The prevalence of FIS was higher in females (38.8% vs. 31.2%, $P<0.05$) and rural dwellers (43.2% vs. 29.7%, $P<0.05$). Glycaemic control was worse in individuals with FIS (HbA1c 10.1±0.17 vs. 9.6±0.11%, $P<0.01$) and abdominal obesity (10.4±0.14 vs. 9.3±0.34, $P<0.001$). In individuals with abdominal obesity, HbA1c was higher among those with FIS than those without (10.9±0.25 vs 10.1±0.17, $P<0.05$), whereas there was no difference in those without abdominal obesity (9.4±0.30 vs 9.2±0.21, $P>0.05$).

Conclusion: In South Asians with T2D, FIS and abdominal obesity frequently co-exist and associated with worse glycemic control. Strategies to improve glycemic control should, accordingly, address both FIS and obesity.

5.1.4

Title: Peripheral neuropathy and neuropathic pain are worse and are associated with food insecurity and low household dietary diversity in people with South Asians with T2D

Authors: Chinmay S Marathe[1,2,3]; Md Kamruzzaman[1,2,4]; Jessica A Marathe[1,5,6]; Michael Horowitz[1,2,3]; Karen L. Jones[1,2,3]

Presenting Author: Chinmay S Marathe[1,2,3]
Affiliations: [1]Adelaide Medical School, University of Adelaide, SA, Australia; [2]Centre of Research Excellence in Translating Nutritional Science to Good Health; [3]Endocrine and Metabolic Unit, Royal Adelaide Hospital, SA, Australia; [4]Dept of Applied Nutrition and Food Technology, Islamic University, Kushtia, Bangladesh; [5]Department of Cardiology, Royal Adelaide Hospital, Adelaide, Australia; [6]Lifelong Health Theme, South Australian Health and Medical Research Institute, Australia

Abstract:

Aims: We evaluated the association between diabetes-related foot peripheral neuropathy and food insecurity (FIS) and household dietary diversity (HDD), a measure of nutrient adequacy, in Bangladesh, a low-income South Asian country where FIS affects ~25% of the general population.

Methods: Validated questionnaires were used to evaluate diabetes-related foot peripheral neuropathy (MSNI-Q and MNSI-CE), neuropathic pain (DNQ4), autonomic neuropathy (COMPASS-31), food security (USDA-18) and household dietary diversity (HDD), where scores of ≥7, ≥2.5, >4, ≥16, ≥3 and ≤7 respectively were considered to indicate a significant result.

Participants: 523 unselected individuals (T2D: N = 253, female: 63.2%, mean age: 51.0±0.70 years, BMI: 24.6±0.19 Kg/m2, waist circumference: 90.6±0.54 cm, duration of known diabetes: 6.3±0.33 years, random blood glucose: 12.5±0.36 mmol/L and non-diabetes-related foot ‘controls’: N = 270, females: 47.8%, mean age: 42.3±0.79 years, BMI: 24.1±0.19 Kg/m2, waist circumference: 87.7±0.53 cm, random blood glucose: 6.5±0.13mmol/L) were recruited from a general community setting.

Results: The proportion of individuals with FIS (38.7 vs 30.4%, P=0.04) and low dietary diversity was higher in T2D than the controls (41.9 vs 27.8%, P<0.001). MNSI-Q and COMPASS-31 scores were higher in those with T2D (5.4 vs 2.7, P<0.001 and 39.0 vs 26.0, P<0.001) and in those with FIS and low HDD in both groups. Reported MNSI-CE and DNQ4 scores were higher in those with FIS and low HDD but this was statistically significant only with HDD scores in the control group.

Conclusions: South Asians with T2D and peripheral as well as autonomic neuropathy are more likely to experience FIS and low HDD.

5.1.5

Title: Exploring the lived experiences and perceptions of social support in diabetes self-management in Ethiopia: Perspectives of patients, family, and friends

Authors: Israel Bekele Molla[1,2]; Virginia Hagger[2]; Mette Juel Rothman[2,3,4,5]; Bodil Rasmussen[2,4,5,6]

Presenting Author: Israel Bekele Molla[1,2]

Affiliations: [1]Jimma University; [2]Deakin University; [3]Steno Diabetes Centre Odense; [4]Odense University Hospital; [5]University of Southern Denmark; [6]University of Copenhagen

Abstract:

Aim: To explore the lived experiences and perceptions of social support in diabetes self-management among individuals with type 2 diabetes, families, and friends in Ethiopia.

Methods: A phenomenological study approach was utilised through in-depth interviews and focus group discussions with purposive sampling of 30 participants, including individuals with type 2 diabetes, their families, friends, and caregivers. Reflexive thematic analysis was used to analyse the data.

Findings: A total of thirty individuals participated in the study, comprising 23 individuals with type 2 diabetes, 2 caregivers, 2 friends, and 3 neighbours. Three major themes emerged regarding social support and self-management: 1. Cultural perceptions of type 2 diabetes; 2. The supportive environment and psychosocial dynamics in diabetes self-management; 3. Challenges faced in managing the condition. Perceptions of diabetes were shaped by social circumstances and cultural beliefs, leading to gaps in knowledge about its causes and management. Conflicting advice from social networks, influenced by traditional remedies, sometimes pressured individuals to neglect prescribed medications. While social support from family, friends, and community organisations enhanced coping and self-management, challenges like economic pressure, limited access to medications, inadequate healthcare guidance, and cultural factors hindered effective diabetes management.

Conclusion: The study reveals that diabetes experiences and perceptions are influenced by cultural beliefs, traditional practices, and understanding, which requires educational intervention in diabetes care. Family and community members play crucial roles in managing diabetes, while religious practices aid in coping mechanisms and lifestyle changes.

Parallel session 5.2 Completed work: New perspectives on living with and measuring diabetes and its outcomes

5.2.1

Title: Person-Reported Outcome Measures (PROMs) Used in Clinical Trials Among Youth Living with T1D: A Mapping Review of Constructs

Authors and Affiliations: Anna Boggiss[1,2]; Maartje de Wit[3]; Frans Pouwer[4,5,6,7]; Rigel Paciente[1]; Khusbu Chahar[1]; Alice Lafana[1]; Yuhong Lin[1]; Ann Carrigan[7,8]; CaroLynn L. Smith[8]; Louise Ellis[8]; Yvonne Zurynski[8]; Jane Speight[9,10,11]; Keely Bebbington[1,2]

Presenting Author: Anna Boggiss[1,2]
Affiliations: [1]Children's Diabetes Centre, The Kids Research Institute Australia, Perth, Western Australia, Australia; [2]Centre for Child Health Research, The University of Western Australia, Perth, Western Australia, Australia; [3]Amsterdam UMC, Netherlands, Amsterdam Public Health, Mental Health, Amsterdam, the Netherlands; [4]Department of Psychology, University of Southern Denmark, Copenhagen, Denmark; [5]Steno Diabetes Center Odense, Odense, Denmark; [6]Department of Medical Psychology, Amsterdam UMC, Amsterdam, The Netherlands; [7]Digital Health Human Factors Research Group, School of Nursing, Faculty of Medicine and Health, University of Sydney; [8]Centre for Healthcare Resilience and Implementation Science, Australian Institute of Health Innovation, Macquarie University, Sydney, New South Wales, Australia; [9]School of Psychology, Deakin University, Geelong, Victoria, Australia; [10]The Australian Centre for Behavioural Research in Diabetes, Diabetes Victoria, Melbourne, Victoria, Australia; [11]Institute for Health Transformation, Deakin University, Geelong, Australia

Abstract:

Background and Aims: Person-Reported Outcome Measures (PROMs) capture subjective health outcomes in youth living with type 1 diabetes (T1D). While recent efforts have sought consensus on appropriate PROMs, existing reviews in paediatric diabetes either focus only on diabetes-specific measures or lack systematic searches. This mapping review identified and characterised PROMs used in trials involving youth living with T1D.

Methods: Three trial registries (ClinicalTrials.gov, WHO ICTRP, ISRCTN) were searched for randomised controlled trials involving youth (<18 years) living with T1D between June 2020–June 2025. Independent reviewers screened and extracted data on PROM characteristics including construct domains, respondent type, theoretical frameworks, and frequency of use across four domains: quality of life and physical, psychological, and social/family functioning.

Results: Of 631 trials, 96 (15%) included at least one PROM completed by youth or proxy, spanning ~100 unique PROMs. Most frequently used were: Pediatric Quality of Life Inventory, Problem Areas in Diabetes, Diabetes Distress Scale, and Diabetes Family Conflict Scale. PROMs clustered predominantly within psychological functioning and quality of life. Final analyses will report the most frequently assessed constructs and PROMs in key trial types (medications, devices, behavioural), their distribution across domains, and gaps in coverage by age and domain.

Conclusions/ Discussion: This review demonstrates extensive heterogeneity in PROM selection, with many appearing once or twice. Gaps remain in standardisation, consistency across age groups, and coverage of physical and social/family functioning domains. These findings highlight the need for international consensus to prioritise subjective outcomes in clinical trials and support PROM consensus-building with youth and families.

5.2.2

Title: Danish validation and cultural adaptation of the Diabetes Distress Assessment System for people with T1D and T2D

Authors: Louise Laursen[1,2]; Kasper Olesen[1,2]; Lene Eide Joensen[1,2]; Mette Jarne Due-Christensen[1,2]; Bryan Cleal[1,2]

Presenting Author: Bryan Cleal[1,2]
Affiliations: [1]Department of Prevention, Health Promotion and Community Care, Copenhagen University Hospital; [2]Steno Diabetes Center Copenhagen, Herlev, Denmark

Abstract:

Aims: Diabetes distress is rarely assessed systematically in routine clinical care. A prerequisite for broader implementation is reconsideration of how distress is measured and the availability of valid and clinically meaningful instruments. Widely used measures such as Problem Areas in Diabetes (PAID) and the Diabetes Distress Scale (DDS) have advanced understanding but lack the ability to clearly distinguish the overall burden of diabetes distress from its sources. The Diabetes Distress Assessment System (DDAS) was recently developed to address these challenges.

Methods and participants: We translated and validated the DDAS for a Danish context using a forward–backward translation procedure, qualitative testing (39 individual interviews, one user panel with 8 members), and conducted a survey study (n=1108 respondents, 6000 invited) with linkage to national registry data. Statistical analyses included assessment of factor structure, construct validity, and reliability.

Results: Based on qualitative testing, the initial proposed version of The Danish DDAS required linguistic and cultural refinements, including softer wording and removal of items on financial coverage of diabetes care. The core scale demonstrated strong one-factor structure (KMO=0.93) with high internal consistency across all items. Higher DDAS scores correlated with lower wellbeing (WHO-5) and higher HbA1c, consistent with international findings. Distress was frequent in type 1 (40%) and type 2 diabetes(34%).

Discussion: The Danish DDAS is a valid and reliable measure for identifying diabetes distress that offer more nuanced assessment beyond existing short scales. Its structure—an 8-item core plus type-specific source items—supports systematic identification and stepped care interventions in clinical practice.

5.2.3

Title: Picture living with diabetes: A photovoice study of young adults' efforts in making diabetes care fit into their lives

Authors: Anka van Gastel[1,2]; Matthijs Graner-Baars[3]; Eelco J.P. de Koning [1]; Victor M. Montori[2]; Viet-Thi Tran[4]; Sean F. Dinneen[5]; Jessica Mesman[6]; Joris Swaak[7]; Henk-Jan Aanstoot[8]; Anne Stiggelbout[1]; Marleen Kunneman[2,9]

Presenting Author: Anka van Gastel[1,2]

Affiliations: [1]Leiden University Medical Center; [2]Mayo Clinic; [3]The ééndiabetes foundation; [4]Paris Diderot University; [5]Galway University Hospitals; [6]Maastricht University; [7]Panton Medical Design Agency; [8]Diabeter; [9]Health Campus the Hague

Abstract:

Aim: This study aimed to identify 1) what young adults with type 1 diabetes (w/T1D) do to make diabetes care fit in their lives, and 2) the impact of diabetes and diabetes care on living.

Methods: The photovoice method enabled participants to capture real-life situations showing efforts to make care fit and its impact on their lives. Participants organized their photos in themes, which guided focus group discussions. We added a reflective questionnaire, semi-structured interview, and iterative validation to identify participant-defined themes and summarize the data.

Participants: Dutch young adults w/T1D (18-30 years old).

Results: Participants (N=18) submitted 240 photographs (range: 2-34), showing a broad range of situations and emotions. Participants identified 16 themes, grouped into four overarching categories describing their experiences with diabetes: 1) My diabetes: glucose levels, workload, 24/7 present; 2) My life: flow of (daily) life, special and irregular circumstances, life changes, body and health; 3) Support: devices and technology, social network, clinical (diabetes) care; 4) Mental aspects: emotional processes, perspective, being a patient. Themes that overlapped between My diabetes and My life included eating and counting carbohydrates, activity and exercise, and using recreational substances.

Conclusion: Young adults w/T1D face the challenge of fitting their care into their ever-changing lives. While support from devices, healthcare professionals, and social networks can help, they can also create burdens. Participants emphasized the importance of mental health in their lives w/T1D. This study highlights the need for diabetes care that acknowledges the emotional, social, and practical realities of young adults' lives.

5.2.4

Title: Living with Diabetes as Loss: A Grief-Informed Perspective on Psychosocial Care

Authors: Bryan Cleal[1]; Mette Due Christensen[1]; Dan Grabowski[1]; Kristoffer Bastrup-Madsen Marså[1]; Jonathan Garfinkel[2]; Linxi Mykoli[3]

Presenting Author: Bryan Cleal[1]
Affiliations: [1]Steno Diabetes Center Copenhagen; [2]University of Alberta; [3]University Health Network, Toronto

Abstract:

Aims: To explore how the Integrative Process Model of Loss and Grief (IPM) can provide new insights into the emotional, social, and existential dimensions of living with diabetes, extending current understanding beyond the established concept of diabetes distress.

Methods: This is a conceptual paper drawing on existing literature from psychosocial diabetes research, bereavement studies, and the broader field of chronic illness. We applied the IPM to the context of diabetes to examine its potential for capturing overlooked aspects of lived experience. The perspectives of lived experience were also represented within the author group, as two authors live with diabetes themselves.

Participants: No new empirical data were collected. The focus is on synthesising insights from published research and narratives of people living with diabetes, as reported in previous studies.

Results: Applying the IPM highlights that the challenges of living with diabetes cannot be fully understood within the framework of diabetes distress alone. Many experiences — such as the loss of spontaneity, trust in the body, imagined futures, or social ease — resemble ongoing processes of grief. These are multidimensional, evolving, and often difficult to express. Recognising them as forms of loss and grief broadens the vocabulary available to clinicians and researchers and offers a more holistic understanding of psychosocial burden.

Conclusions/Discussion: Using a grief-informed lens does not replace the concept of diabetes distress but complements it. It may reduce stigma, legitimise diffuse but profound experiences of loss, and guide more compassionate dialogue and psychosocial support in diabetes care.

Session 6.1 Completed work: Diabetes in women and pregnancy

6.1.1

Title: Social Needs and Stress in Pregnant Women with Diabetes in New Zealand: a Cross-Sectional Study

Authors: Kristin Harrison Ginsberg[1]; Yujia Chen[1]; Heena Lakhdhir[2]; Elizabeth Lewis-Hills[1]; Christopher McKinlay[1]; Kara Okesene Gafa[1]; Trecia Wouldes[1]; Meghan Hill[1]; Alana Cavadino[1]; Charlotte Oyston[1]; Anna Serlachius[1]

Presenting Author: Anna Serlachius [1]
Affiliations: [1]Auckland University; [2]Te Whatu Ora Counties Manukau

Abstract:

Aims: The primary study aims were to describe the stress levels of a sample of pregnant women living with diabetes and to explore the proportion with inadequately met social needs (food, transport, housing).

Methods: A prospective, cross-sectional study was conducted with pregnant women living with prediabetes and diabetes in Auckland, New Zealand. Participants completed one survey with measures including the Perceived Stress Scale (PSS) and a brief version of the New Zealand Family Resource Scale. Demographic data and health record data were also collected.

Participants: 841 pregnant women (mean age 32.3 years, SD=6.3) from two diabetes clinics completed the study survey.

Results: Most participants had gestational diabetes (53%, 433/825) or type 2 diabetes (32%, 256/825). The cohort reported a moderate level of stress on the PSS (M=16.79, SD=5.95) with 4.5% (38/841) in the high range (>26). A fifth of participants (21.3%, 180/841) reported inadequate funds to buy essential goods, 12.3% (104/841) reported inadequate transportation, and 11.4% (96/841) reported inadequate food for 2 meals per day. Secondary analysis found a significant relationship ($p < .001$) between stress and social needs, with higher stress scores associated with higher social needs inadequacy. Social needs also differed by ethnicity ($p < .001$), with Pacific peoples experiencing higher rates of inadequacies than other groups.

Conclusion: Pregnant women with diabetes reported moderate levels of stress and some reported inadequate social resources related to food, finances, and transport. These findings highlight concerning potential barriers to diabetes self-management, and future research should explore the effects on health outcomes.

6.1.2

Title: The transition from pre- to early pregnancy in women with T2D – a qualitative study

Authors: Line Elberg Lorenzen[1,2,3]; Jori Aalders[4]; Christina Anne Vinter[2,3]; Bodil Rasmussen[5]; Dorte Møller Jensen[1,3]; Mette Juel Rasmussen[1,3,5]

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Affiliations: [1]Steno Diabetes Center Odense, Odense University Hospital, Denmark; [2]Department of Gynecology and Obstetrics, Odense University Hospital, Denmark; [3]Department of Clinical Research, University of Southern Denmark, Denmark; [4]Steno Diabetes Center Odense, Odense University Hospital, Denmark; [5]School of Nursing and Midwifery, Faculty of Health, Deakin University, Melbourne, Australia

Abstract:

Background and aim: Pregnant women with type 2 diabetes and their fetuses are at increased risk of obstetric complications. This necessitates extensive changes in diabetes self-care during pregnancy, including insulin therapy, frequent blood glucose monitoring, carbohydrate counting, and regular hospital visits. For many women, this transition is both demanding and emotionally challenging. To strengthen care and support during this vulnerable period, it is essential to gain deeper insight into women's own perspectives. The aim of the study was to explore how women with type 2 diabetes experience the transition from the pre-pregnancy period to early pregnancy.

Methods: Semi-structured individual interviews were conducted between gestational weeks 10–16 from March to November 2023. Data were analysed using Interpretative Phenomenological Analysis.

Participants: Thirteen pregnant women with type 2 diabetes from the Region of Southern Denmark.

Results: Four main themes were identified: 1) Being prepared for pregnancy and diabetes 2) Experiencing diabetes in a new way 3) A new everyday life 4) Adjusting to life changes. The transition from pre-pregnancy to early pregnancy involved substantial changes in diabetes self-care, daily life, and self-perception. Women's experiences were strongly influenced by whether they felt adequately prepared for pregnancy with type 2 diabetes.

Conclusion: Early pregnancy entailed complex emotional and practical adjustments for women with type 2 diabetes. Preparation played a pivotal role, as women who felt well prepared were better able to manage both emotional and practical challenges of being pregnant with type 2 diabetes more effectively than women who are less prepared.

6.1.3

Title: From illness perceptions to glycemic management: the role of diabetes distress in gestational diabetes

Authors and Affiliations: Ana Munda[1]; Drazenka Pongrac Barlovic[1]

Presenting Author: Ana Munda[1]
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Abstract:

Aims: Illness perceptions and diabetes distress (DD) are understudied aspects of gestational diabetes (GDM). We aimed to demonstrate the association between perceptions of GDM and glucose management, and to test whether DD mediates this link.

Methods: In our prospective cohort study, women with GDM completed the Diabetes Distress Scale (DDS-17) and the Brief Illness Perception Questionnaire (BIPQ). Self-monitoring of blood glucose (SMBG) data was analysed from the time of GDM diagnosis until the last medical check-up. The primary outcome was the percentage of SMBG measurements within the target range. The data were analysed using hierarchical linear regression.

Participants: We included 311 women (age: 31.7±4.9 years) newly diagnosed with GDM.

Results: Controlling for age and BMI, BMI was a significant predictor of less optimal glucose management ($\beta=-0.20$, $p<0.001$), whereas age was not. Adding the two illness perception factors significantly improved the model ($\Delta R2=0.019$, $p=0.048$). The first factor – reflecting the perceived adverse impact of GDM on daily life, predicted less favourable glucose management ($\beta=-0.13$, $p=0.024$), while the second factor - understanding and controlling GDM, did not. After DD was added in the third step, the model improved further ($\Delta R2=0.012$, $p=0.047$). DD was an independent predictor of less optimal glucose management ($\beta=-0.12$, $p=0.047$), and the association for the impact of GDM on daily life was attenuated and no longer significant.

Conclusions: GDM perceptions were associated with glucose management, but the link was attenuated after accounting for DD, while DD remained an independent predictor. Findings highlight the value of addressing DD in routine care.

End of Abstracts

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