

Welcome and Scene Setting



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Eating Disorders and Disordered Eating in Type 1 Diabetes

- T1DE: prevalence^{1,2,3}, morbidity^{4,5,6} and mortality^{7,8}
- Complex relationships with food underpin management of type 1 diabetes, and many other chronic disease
- Management of T1DE is complex and outcome data is emerging
- T1DE parliamentary inquiry(2024) and Welsh Government Review of Eating disorders recommended
 - Standardised Screening
 - Early access to services
 - Prevention



Why prevention

Emerging awareness of the role of screening

However, how do we support and embed prevention within services?

Science vs Reality

Parenting intervention, Young Person intervention





PRIORITY Trial

PaRent InterventiOn to pRevent dIsordered eating
in children and young people with Type 1 diabetes

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What is the problem?

- **Diabetes UK** have highlighted the importance of supporting people with diabetes and disordered eating (Wylie et al., 2019)
- Disordered eating may be more prevalent in young people with T1D (Colton et al., 2015; Toni et al., 2017)
- Disordered eating in T1D is associated with repeated diabetic ketoacidosis (DKA), higher HbA1c and impaired quality of life (Peveler et al., 2005)



THE IMPACT OF TYPE ONE DIABETES ON EATING BEHAVIOURS



- HEALTHY EATING HABITS
- BODY ACCEPTANCE
- HEALTHY WEIGHT FOR AGE, HEIGHT AND BODY TYPE



- PREOCCUPATION WITH WEIGHT AND SHAPE
- EXCESSIVE EXERCISING FOR WEIGHT LOSS
 - COMPULSIVE OVER EATING
 - RESTRICTING FOOD INTAKE



- ANOREXIA NERVOSA
 - "DIABULIMIA"
- BINGE EATING DISORDER

RESEARCH SUGGESTS MORE YOUNG PEOPLE ARE FALLING INTO THESE CATEGORIES



But what about prevention?



↑ Self-esteem
and body
acceptance
(Pinquart et al., 2013)



Flexible approaches
to food and meal
planning
(Lowe et al., 2008)



Involving the whole
family unit
(Lock & Le Grange, 2019)

How do parental interventions help?

- Parental and family involvement is a useful tool in the prevention and early treatment of disordered eating (Lock & Le Grange, 2019)
 - Active ingredients: provision of information and social support (Nicholls & Yi, 2014)
- Parental interventions also useful in supporting young people to self-manage T1D (Lohan et al., 2015)



Methods

Phase One

Co-development of the intervention and resources together with parents of, and children and young people with T1D, and health care professionals

Phase Two

Evaluation of the feasibility and acceptability of delivering this intervention to establish whether a definitive trial intervention is justified



What are the aims of PRIORITY?

- Encourage appropriate **communication around food and weight**, and recognise the early signs of disordered eating in their children and young people with T1D
- Encourage the **identity** children and young people are forging, alongside T1D safety
- **Normalise and accept** a range of eating behaviours alongside T1D management
- Encourage **growing independence** of their child or young person, and growing responsibility for T1D management



What does the **PRIORITY** intervention involve?

- The PRIORITY intervention includes **2x2 hour online psychoeducation workshops** and an interactive website with downloadable resources and parental/family-written blogs
- The material focus on factors we know prevent the development of disordered eating
- Peer support, role play, myth busting, videos and interactive games are used to support delivery of the material (Behavioural Change Taxonomy, 2013)



Scan here for more
information the
PRIORITY
intervention



Design

- A **feasibility** randomised controlled trial with nested qualitative evaluation
- **70 parents*** of children and young people (11-14 years) with T1D
 - Not enrolled in any other randomised controlled trial
 - Parents not receiving psychological support for their child's T1D



Scan here for more
information about
the **PRIORITY** study
design



Progression criteria

To progress to a full trial, we would require the following conditions to be met:

- At least 30% recruitment rate amongst eligible parents
- At least 80% of candidate primary outcome data collection complete per participant
- Predicted sample size and recruitment rates which would allow an appropriately powered RCT to be conducted in the UK over 3 years



Demographic results:

Of parents:



89%



94% white British



46 years



15% experienced
disordered eating

Of children:

47%

78% white British

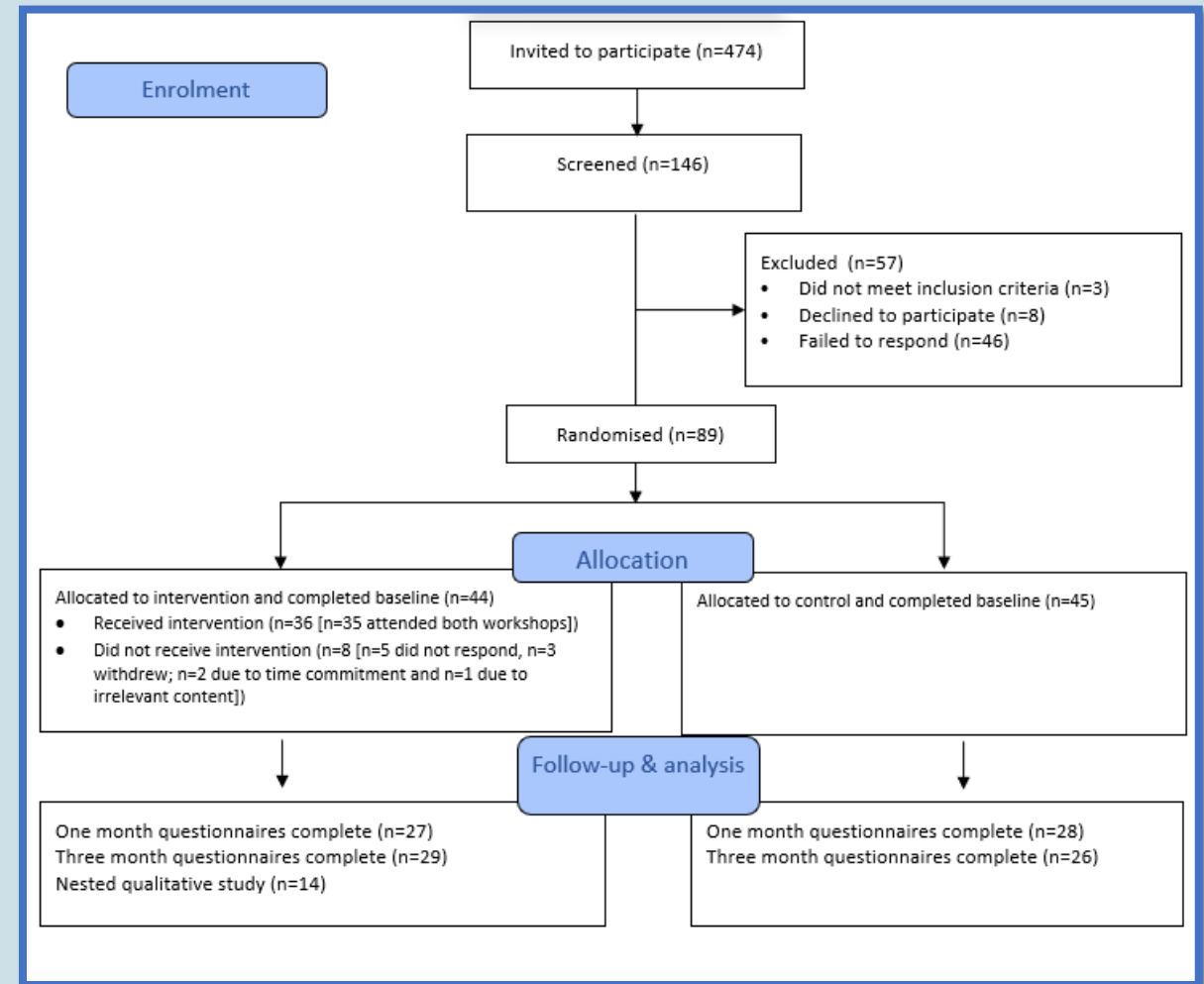
12 years

Average age of diagnosis 8 years,
mean HbA1c 59 mmol/mol



Recruitment and retention

- 31% were screened from those invited
- 62% randomised from those screened
- 82% attended ≥ 1 workshop, 80% attended both workshops
- 97% returned for second workshop
- 3% formally withdrew (all intervention)
- 62% completed data at 1-month and 3-months 75% data completed at baseline and 1 or 3-months



Acceptability

*"I discovered through your website about the changes between disordered eating and eating disorders and **I think she has disordered eating, her issue is disordered eating and I think the Type 1 has a lot to do with it.**"*

*"The strategies given to use after the workshop have been **useful to use with both my children not just the one with type 1 diabetes**, so very helpful to us as a whole family."*

*"The other day he said, **"Mum I was 14 but I did eat but I came back down,"** and we had an honest open discussion about it rather than, Oh my god what are you doing, that's the wrong thing to do."*

*"Now I would be able to recognise the **signs** and would be able to sort of, if there was anything that was kind of concerning me, **I would then be able to reach out and say this is concerning and then have discussions around it** and see if it was a problem or not."*

"Always try to not be, it's not the first thing I say when she comes through the door is, how were your numbers today?"



Acceptability



Statement item	Proportion agreed (%)
I found taking part in the study to be easy	96.6
The workshop was well organised and ran smoothly	96.6
I believe that a psychological workshop could help to understand and manage T1DE	93.1
I found taking part in the study to be convenient	89.7
The workshop felt the right length of time	89.7
I felt safe and comfortable during the workshop	89.7
On the whole, I found the workshop to be helpful	89.7
I found taking part in the study to be interesting	86.2
I found taking part in the study to be worthwhile/beneficial	86.2
I found it helpful to have other parents in the workshop to share ideas with	82.8
The workshop met my expectations	82.8
I would recommend the workshop to other parents of children with T1D	82.8
I found the study website and downloadable resources helpful	72.4
I had concerns about having my child completing the questionnaires about T1DE	41.4
I found taking part in the study to be time consuming	10.3
Taking part in the workshop felt distressing and burdensome for me	3.4

Signal of efficacy

Outcome	Intervention M (SD)			Control M (SD)			Effect size Cohen's d (95%CI)	
Parent-reported								
	Baseline n=44	1-month n=27	3-months n=29	Baseline n=45	1-month n=28	3-months n=26	1-month	3-months
DEPS-R	10.99 (9.01)	10.21 (8.83)	9.21 (7.88)	9.58 (9.61)	9.84 (7.68)	10.07 (9.15)	0.04 (-0.48, 0.57)	-0.10 (-0.63, 0.43)
CEBQ								
Food responsiveness	2.81 (1.10)	2.65 (1.05)	2.51 (0.92)	2.81 (0.90)	2.99 (0.94)	3.00 (0.95)	-0.34 (-0.87, 0.20)	-0.52 (-1.05, 0.02)
Emotional over-eating	2.54 (0.90)	2.36 (0.91)	2.34 (0.73)	2.18 (0.95)	2.45 (0.87)	2.33 (0.88)	-0.07 (-0.60, 0.46)	0.01 (-0.52, 0.54)
Enjoyment of food	4.00 (0.75)	3.89 (0.77)	3.82 (0.74)	4.04 (0.79)	4.16 (0.76)	3.99 (0.84)	-0.35 (-0.88, 0.18)	-0.22 (-0.74, 0.32)
Desire to drink	2.16 (0.79)	2.28 (0.90)	2.17 (0.92)	2.07 (0.78)	2.25 (0.81)	2.26 (0.73)	0.04 (-0.49, 0.56)	-0.11 (-0.64, 0.42)
Satiety responsiveness	2.35 (0.75)	2.44 (0.73)	2.47 (0.60)	2.13 (0.66)	2.15 (0.62)	2.17 (0.47)	0.43 (-0.11, 0.96)	0.55 (0.01, 1.08)
Slowness in eating	2.15 (0.69)	2.16 (0.69)	2.07 (0.70)	1.87 (0.65)	1.95 (0.67)	2.00 (0.59)	0.31 (-0.23, 0.84)	0.11 (-0.42, 0.64)
Emotional under-eating	2.74 (0.71)	2.57 (0.76)	2.64 (0.75)	2.36 (0.75)	2.45 (0.80)	2.30 (0.76)	0.15 (-0.38, 0.68)	0.45 (-0.09, 0.98)
Food fussiness	2.68 (1.05)	2.50 (1.03)	2.47 (1.08)	2.51 (1.06)	2.54 (1.07)	2.48 (0.92)	-0.04 (-0.57, 0.49)	-0.01 (-0.54, 0.52)
PAID-PR	38.41 (19.67)	34.63 (17.59)	34.61 (18.62)	38.19 (16.94)	39.91 (16.58)	35.96 (18.20)	-0.31 (-0.84, 0.23)	-0.07 (-0.60, 0.46)
WEMWBS	45.66 (8.43)	48.19 (9.95)	49.34 (7.36)	46.80 (9.67)	48.96 (8.21)	47.20 (8.68)	-0.08 (-0.61, 0.45)	0.27 (-0.27, 0.79)
Child-reported								
	n=27	n=22	n=11	n=24	n=19	n=16		
DEPS-R	10.82 (9.59) 9.60 (10.67)	10.72 (10.96) 7.00 (15.62)	9.45 (8.54)	13.19 (9.94)	15.30 (12.07) 9.60 (18.67)	15.63 (14.46) 7.74 (26.72)	-0.40 (-1.01,0.23)	-0.50 (-1.26, 0.30)

Signal of efficacy

Outcome	Intervention M (SD)			Control M (SD)			Effect size Cohen's d (95%CI)	
Parent-reported								
	Baseline n=39	1-month n=27	3-months n=29	Baseline n=40	1-month n=24	3-months n=24		
Child HbA1c	59.03 (21.74)	59.96 (16.92)	56.10 (10.97)	59.55 (15.97)	58.33 (12.82)	59.92 (10.29)	0.11 (-0.44, 0.66)	-0.36 (-0.90, 0.19)
	Baseline n=40	1-month n=25	3-months n=28	Baseline n=42	1-month n=24	3-months n=26		
Child BMI	19.94 (3.50)	19.99 (3.14)	19.74 (3.29)	20.55 (3.65)	21.23 (2.98)	21.61 (3.44)	-0.40 (-0.96, 0.17)	-0.56 (-1.09, 0.00)
Child BMI percentile	65.68 (32.89)	68.32 (29.97)	68.32 (29.47)	68.39 (28.07)	76.61 (23.97)	79.52 (19.69)	-0.30 (-0.86,0.26)	-0.44 (-0.98, 0.10)
	Baseline n=44	1-month n=27	3-months n=30	Baseline n=45	1-month n=28	3-months n=25		
Child ketoacidosis	0.20 (0.55)	0.07 (.27)	0.10 (0.31)	0.07 (0.25)	0.14 (0.36)	0.04 (0.20)	-0.22 (-0.75, 0.31)	0.23 (-0.31, 0.75)
	Baseline n=44	1-month n=27	3-months n=30	Baseline n=45	1-month n=28	3-months n=25		
Child unexpected hospital visits	0.05 (0.21)	0.00 (0.00)	0.03 (0.18)	0.00 (0.00)	0.04 (0.19)	0.00 (0.00)	-0.29 (-0.82, 0.24)	0.23 (-0.31, 0.75)
	Baseline n=43	1-month n=27	3-months n=30	Baseline n=45	1-month n=28	3-months n=25		
Child missed hospital appointments	0.02 (0.15)	0.00 (0.00)	0.03 (0.18)	0.02 (0.15)	0.11 (0.42)	0.04 (0.20)	-0.37 (-0.89, 0.17)	-0.05 (-0.58, 0.48)

Conclusions from the feasibility study

- A brief, manualised intervention looks to be largely feasible and acceptable to parents of children with T1D
- An encouraging signal of efficacy was observed for both T1D specific and more generic patient reported outcome measures
- A definitive trial may be justifiable if we can mitigate against some of the concerns
 - Lack of diversity in feasibility sample
 - Accuracy of clinical outcome measures (e.g., HbA1c)
 - Improving completion of outcome measures

Scan here for more
information about
the PRIORITY results



What else have we done?

- We have developed and are evaluating eLearning to train HCPs currently working in diabetes services to deliver the PRIORITY approach
 - Design: Mixed method, repeated measures (pre-post) study
 - Participants: HCPs working in NHS T1D services
 - Intervention: e-Learning involving 3 CPD-accredited modules addressing:
 - What is Disordered Eating? How do we support families to address DE related to T1D?
 - Navigating identity, lifestyle and psychological perspectives on food in relation to T1D
 - Parenting and communication styles: Navigating parenting with T1D in the mix



Preliminary results

Table 1. Mean within-group differences and effect size estimates (n=19; preliminary results)

	BL	FU1		FU2	
	Mean (SD)	Mean (SD)	Hedges g effect size (95% CI)	Mean (SD)	Hedges g effect size (95% CI)
IMBS					
Information	51.16 (2.06)	52.00 (2.21)	0.38 (-0.26, 1.03)	51.79 (3.21)	0.23 (-0.41, 0.87)
Motivation	36.74 (2.62)	37.79 (1.96)	0.44 (-0.20, 1.09)	37.37 (1.83)	0.27 (-0.37, 0.91)
Behavioural skills	30.26 (4.87)	36.21 (5.32)	1.14 (0.46, 1.83)	35.37 (4.36)	1.08 (0.40, 1.76)
MBI					
Emotional Exhaustion	17.32 (7.37)	17.32 (7.19)	0.00 (-0.64, 0.64)	17.21 (8.58)	-0.01 (-0.65, 0.62)
Depersonalisation	12.00 (5.27)	12.42 (4.41)	0.08 (-0.55, 0.72)	12.53 (5.00)	0.10 (-0.54, 0.74)
Personal Achievement	39.11 (4.67)	40.05 (4.56)	0.20 (-0.44, 0.84)	40.00 (3.43)	0.21 (-0.43, 0.85)

IMBS: Higher scores indicate greater information, motivation and behavioural skills

MBI: Higher emotional exhaustion and depersonalisation indicates higher burn-out, higher personal achievement indicates lower burn-out.

Ongoing work...

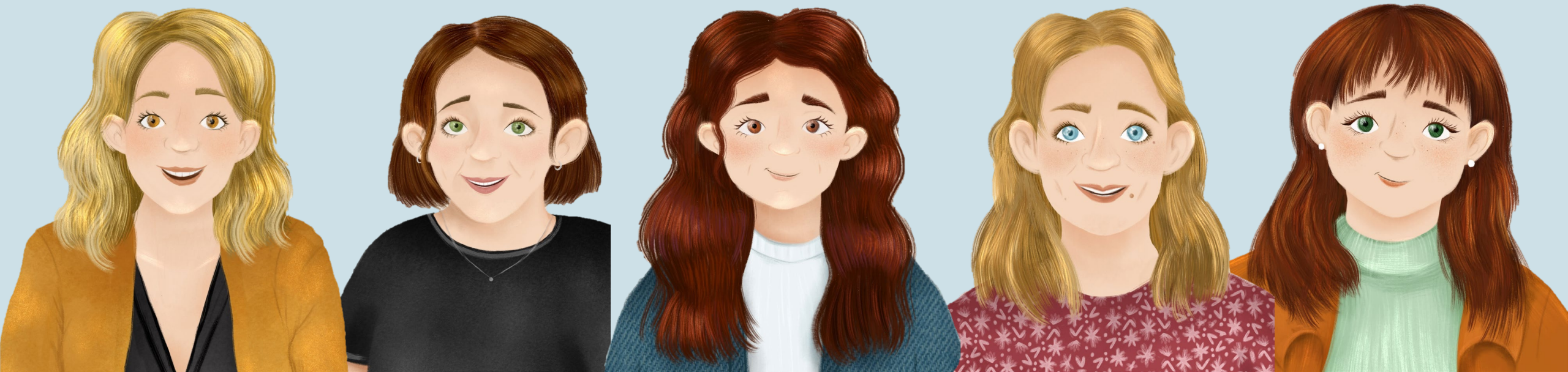
- We are now working with up to 4 NHS Trusts to see if diabetes teams can deliver the PRIORITY approach to the same fidelity
- This will involve completion of the e-Learning and delivery of the workshops. All workshop materials are provided for you, and all outcomes will be monitored by our team
- This work will inform a large-scale trial to determine effectiveness and cost-effectiveness of the PRIORITY approach

Scan here for more
information about
how to talk about
T1DE with families



Thank you for listening

With special thanks to the whole PRIORITY Team, our funders Diabetes UK,
and the participants themselves!



DIABETES BODY PROJECT

-a body acceptance and eating disorder prevention program adapted to type 1 diabetes

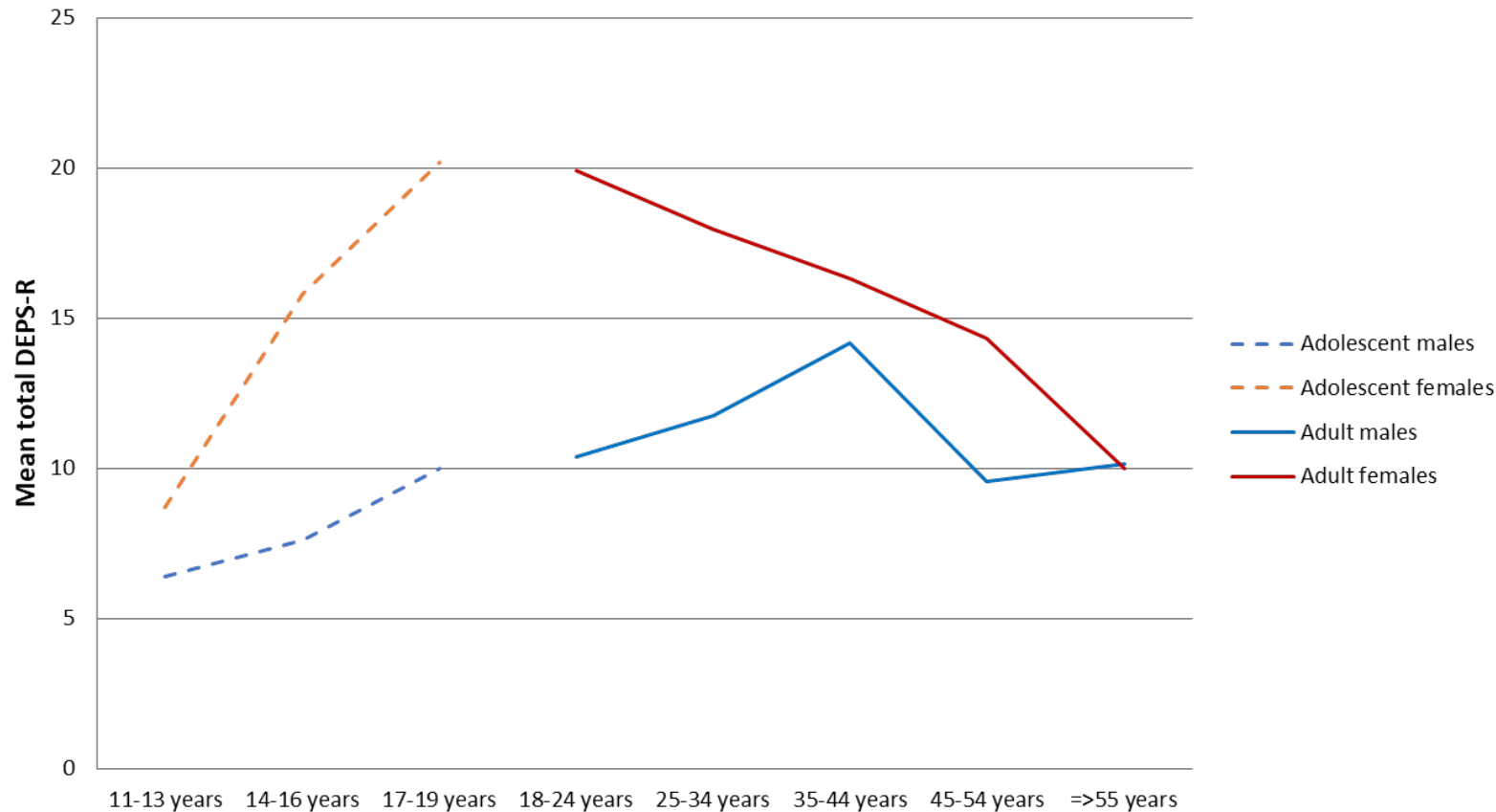
*Line Wisting (PhD), researcher
Regional Department for Eating Disorders
Division of Mental Health and Addiction
Oslo University Hospital, Norway*



TYPE 1 DIABETES AND EATING DISORDERS

- 2-3 fold risk of ED in young females with T1D compared to their peers without T1D, and associated with increased rates of complications and mortality (Nielsen et al., 2002; Mannucci et al., 2005; Young et al., 2012; Gibbings et al., 2021)
- Poorer glycemic control (Nielsen et al., 2002; Mannucci et al., 2005; Young et al., 2012)
- Intentional insulin omission in up to 1/3 of young females (Goebel-Fabbri et al., 2011)
- Increased rates of T1D complications (Nielsen et al., 2002; Mannucci et al., 2005; Young et al., 2012)

AGE TRENDS



Wisting et al. *Journal of Eating Disorders* (2018) 6:28
<https://doi.org/10.1186/s40337-018-0209-z>

Journal of Eating Disorders

RESEARCH ARTICLE

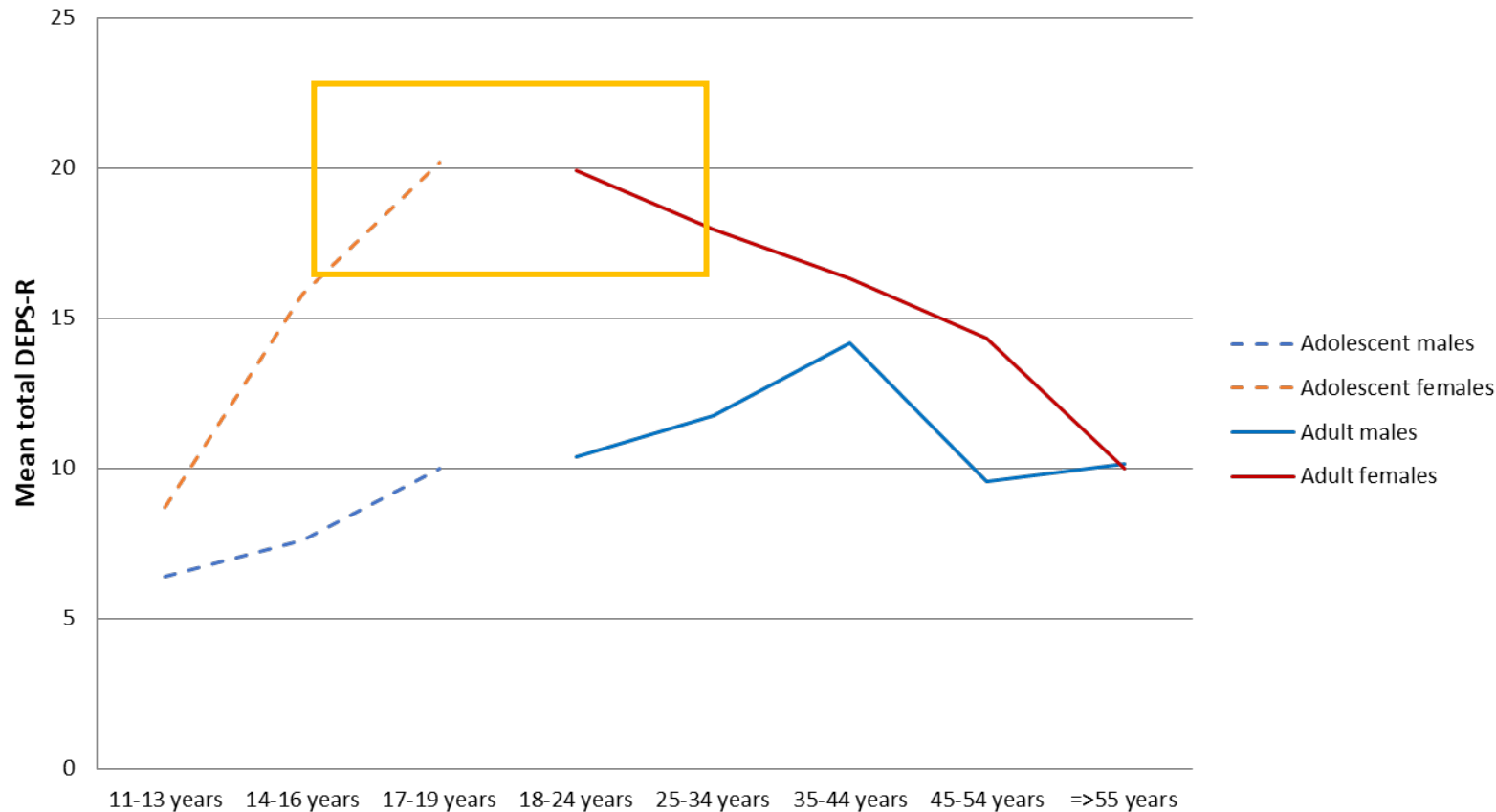
Open Access

Prevalence of disturbed eating behavior and associated symptoms of anxiety and depression among adult males and females with type 1 diabetes

Line Wisting^{1,2*}, Torild Skriverhaug^{2,3,4,5}, Knut Dahl-Jørgensen^{2,3,4,5} and Øyvind Rø^{1,6}



AGE TRENDS



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RESEARCH ARTICLE

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BODY IMAGE



- Perceptions, thoughts, feelings, and behaviors towards your body (Grogan, 2021)
- Body dissatisfaction risk factor for developing EDs (Prjnak et al., 2021)
- Body acceptance associated with self-esteem, psychological wellbeing, security in one's identity, and protective factor for EDs (Linardon et al., 2022)

DIABETES AND BODY IMAGE

- Diabetes-specific aspects of body image (Verbist & Condon, 2022)
- Social media use associated with a negative body image among people with T1D (Verbist & Condon, 2021)
- Higher risk of ED in T1D (Young et al., 2012), prevention is crucial
- Studies on prevention of ED in T1D scarce
- Body Project the most effective ED prevention program generally (Le et al., 2017; Watson et al., 2017), but not previously evaluated among people with T1D

BODY PROJECT



- Group-based body acceptance program, how to resist appearance pressures, and promote a positive body image, selective prevention program (Eric Stice, early 2000s)
- Created by Professor Eric Stice, Stanford University
- Cognitive dissonance theory (Festinger, 1957)
 - Act against your attitudes
 - Based on documented risk factors for EDs (Stice et al. 2002, 2017, 2021, 2024)
 - The most effective ED prevention program over multiple trials (Watson et al., 2017; Le et al., 2017)
 - Groups of 6-8 young women, 1-2 group facilitators
 - 1-hour a week over 4 weeks, delivered in-person or virtually (Ghaderi et al., 2020)

BODY PROJECT: CONTENT

- In-session discussions
 - Costs of pursuing unhealthy and unrealistic body- and appearance ideals
 - How can we resist the thin beauty ideal and rather promote body acceptance?
 - Social media
 - Social upward negative comparisons
- In-session role plays
 - Respond to thin-ideal statements
- Home exercises between sessions
 - Body activism
 - Social media og upward negative comparisons (Wisting et al., 2021; Green et al., 2017)

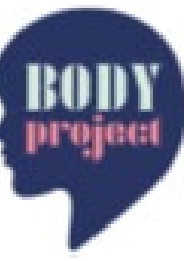


HOW TO ADAPT?

- Added 2 sessions (in total 6 hours/sessions)
- Attitudes to insulin
- Diabetes self-care and quality of life
- Diabetes-specific body image
- Developed in collaboration with user representatives
 - Katrine Karlsen
 - Martine Hemstad Lyslid



CONTENT (diabetes)



- In-session discussions
 - Specific costs of pursuing the thin beauty ideal when you have T1D
 - How does T1D impact on body image?
 - Devices
 - What are advantages of giving your body the insulin it needs?
- Role plays
 - Respond to hurtful and insensitive comments about diabetes

CONTENT (home exercises)

- Upward social comparisons, how can we change our thinking?
- Social media, awareness, who are we following and how do they make us feel?
- Body activism
- Diabetes activism
- Tribute to insulin
- Letter to younger girl with T1D

CONCLUSION PILOT STUDY

- Promising preliminary results of the Diabetes Body Project pilot study, with large effect sizes on primary outcomes, including diabetes-specific psychological variables
- Positive experiences from participants and group facilitators with virtual meetings
 - Qualitative focus groups after completed Diabetes Body Project
- RCT required to establish effect of the Diabetes Body Project compared to a control group



ONGOING RESEARCH IN NORWAY

- Diabetes Body Project RCT
- Standard Body Project RCT



ONGOING RESEARCH IN NORWAY

- Diabetes Body Project RCT
- Standard Body Project RCT



MULTI-NATIONAL RCT



- Funded by Breakthrough T1D (formerly JDRF)
- Four sites
 - Oslo University Hospital, Norway
 - Stanford University, USA
 - Amsterdam University Medical Centers, the Netherlands
 - Joslin Diabetes Center, Harvard University, USA
- N=293 young women aged 14-35 years included



AIM OF STUDY

Investigate the effects of Diabetes Body Project to reduce ED risk factors and symptoms, and prevent future ED onset among young women with T1D

- ❖ Pilot study with young men with T1D

METHODS

- Participants randomized to two conditions
 - Diabetes Body Project groups
 - Psychoeducation control group (videos)

RESEARCH GROUP



Line Wisting



Severina Haugvik



Eric Stice



Elena Toschi



Maartje de Wit

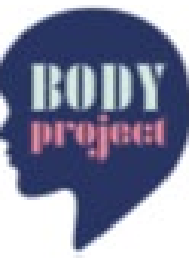


Mareille Hennekes

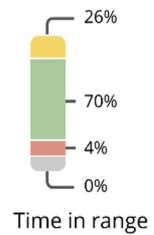
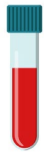


Anne Louise
Wenersberg

METHODS

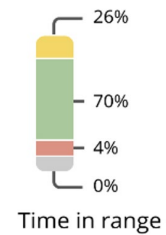


PRETEST

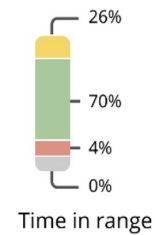
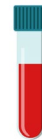


*6-week
intervention*

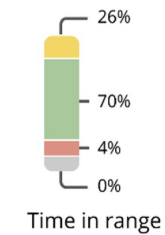
POSTTEST



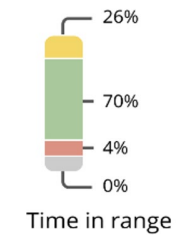
6-MONTHS



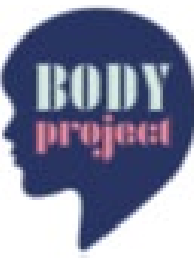
1-YEAR



2-YEARS



STATUS



- Recruitment and data collection completed
- Four articles published
 - Protocol
 - Acute effects
 - Participant feedback (qualitative)
 - Evaluation of the ability of the DEPS-R to identify ED diagnoses in preparation

Diabetes Care

1



Diabetes Body Project: Acute Effects of an Eating Disorder Prevention Program for Young Women With Type 1 Diabetes. A Multinational Randomized Controlled Trial

<https://doi.org/10.2337/dc24-1599>

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Elena Toschi,⁶ Christopher D. Desjardins,⁷
Torild Skrivarhaug,^{4,5,8}
Knut Dahl-Jørgensen,^{4,5,8} Eric Stice,⁹
and Line Wisting^{3,10}

RESULTS

*Effect sizes of Cohen's d : Small: >0.2, Medium: >0.5, Large: >0.8



	Summary Statistics by Assessment Mean (Standard Deviation)			Test of condition by outcome	
	Condition	Pretest	Posttest	Adjusted p-value	Cohen's d
Eating disorder symptoms	Control	14.12 (12.58)	11.67 (17.52)	0.026	-0.30
	DBP	11.41 (11.80)	6.70 (7.96)		
Diabetes-specific disordered eating behaviors	Control	20.71 (12.36)	16.29 (10.07)	<0.001	-0.70
	DBP	18.06 (10.05)	11.06 (7.44)		
Dietary restraint	Control	2.78 (0.79)	2.46 (0.80)	0.021	-0.31
	DBP	2.66 (0.73)	2.26 (0.75)		
Pursuit of thin appearance ideal	Control	3.40 (0.70)	3.29 (0.65)	<0.001	-0.56
	DBP	3.40 (0.59)	3.01 (0.71)		
Body dissatisfaction	Control	3.46 (0.78)	3.39 (0.76)	<0.001	-0.59
	DBP	3.40 (0.69)	2.98 (0.72)		
Negative affect	Control	2.22 (0.84)	2.03 (0.80)	0.091	-0.23
	DBP	2.02 (0.68)	1.81 (0.58)		
Diabetes distress	Control	39.14 (20.59)	31.21 (19.88)	0.002	-0.42
	DBP	34.06 (18.13)	23.84 (15.62)		
Diabetes-related quality of life	Control	56.28 (13.84)	59.27 (13.78)	0.004	0.39
	DBP	58.56 (12.80)	63.90 (12.57)		
Time-in-range	Control	63.54 (17.44)	64.87 (16.92)	0.544	-0.08
	DBP	68.19 (16.13)	68.28 (15.24)		

Summary

Both DBP and educational controls showed improvements in ED risk factors, symptoms and behaviors from pretest to posttest.

Compared to the control condition the DBP had significantly larger improvements

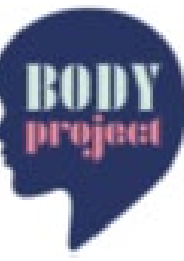
- with **medium effect sizes*** for:
 - Diabetes-specific DEB
 - Body dissatisfaction
 - Pursuit of the thin appearance ideal
- with **small effect sizes*** for:
 - Diabetes distress
 - Diabetes-related quality of life
 - Dietary restraint
 - Eating disorder symptoms
- No significant differences for negative affect and TIR.

ARTICLES IN THE PIPELINE

- T1DAL: diabetes-specific quality of life
 - Feasibility of Diabetes Body Project for young men with T1D
 - ED characteristics
-
- 2-year follow-up (main outcome; ED incidence)



USER REPRESENTATIVES



Susanne Herskedal



Emilie Kleven



Katrine Mariell Karlsen



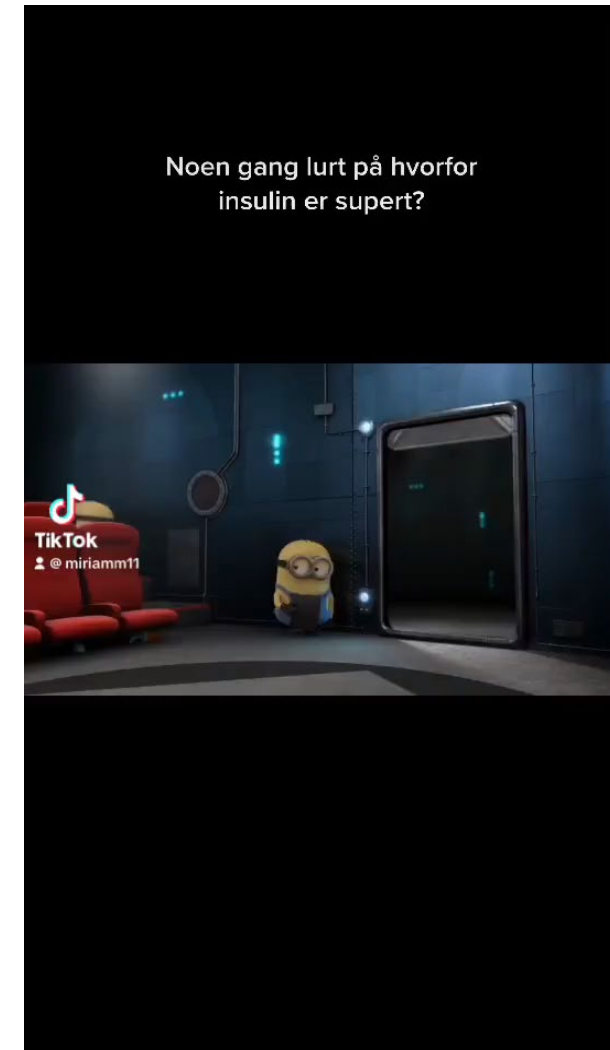
Martine Hemstad Lyslid

Diabetes Body Project group co-facilitators

TRIBUTE TO INSULIN

Have you ever wondered why insulin is so great?

- ... Insulin makes you live as you want
- ... it lowers your blood sugar, so you don't have to be in poor shape!
- ... it helps you, so you can eat whatever you want!
- ... use your energy on something fun!
- ... it helps you to keep your blood sugar stable!
- ... and most importantly, it keeps you alive!



IMPLEMENTATION

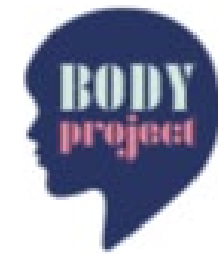
- Potential for broad implementation
- Low-threshold
- Low-cost
- Brief
- In-person or virtual
- Can be delivered by peers
- Brief group-facilitator training
- Train-The-Trainer?



CONCLUSION

- EDs *can* be prevented
- Diabetes Body Project feasible, acceptable, and effective
- Knowledge gaps
 - Which efforts for whom
 - Mechanisms of change
 - How do we reach the boys/young men?
 - How do we implement?

THANK YOU



- Eric Stice
- Maartje de Wit
- Elena Toschi
- Severina Haugvik
- Mareille Hennekes
- Torild Skrivarhaug
- Knut Dahl-Jørgensen
- Emilie Kleven
- Martine Hemstad Lyslid
- Katrine Karlsen
- Susanne Herskedal
- Norwegian Diabetes Association
- ROS
- All participants!



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Diabetes Body Project (Cymru)



Co-Producing and adapting a complex intervention (MRC ADAPT guidelines)



Informed by - qualitative work exploring development and maintenance of disordered eating behaviours during paediatric diabetes care (UK)



And co-production work with people with diabetes and clinicians in practice



ADAPTATION TEAM

Phase 1: (Core Team)



CYPDN



Psychologist



Dietitian



Clinical Lead



Supervisors



Lived Experience

Phase 2: Expanded MDT



Dietitians



Nurses



Psychologists



Paediatricians



Eating Disorder Clinicians



EXPLORE

- Literature Review
- Qualitative Study (Lived Experience)
- Intervention–Context Fit Assessment

Outcome

Understanding Prevention Needs



PLAN

- Co-production Workshop 1
- Diabetes Body Project Review
- Welsh/UK Context
- Adaptations Identified

Outcome

Adaptation Blueprint



ADAPT

- Co-production Workshops 2 & 3
- Content Development
- Parent/Carer Resource
- Healthcare Professional Training
- Review & Feasibility

Outcome

Diabetes Body Project Cymru

Co- production work:

- 6 workshops over 6 months
 - 12 healthcare professionals
 - 7 people with diabetes
 - Identify intervention, fit for context, underpinning theory, feasibility and outcome measures
-
- Adapted diabetes body project cymru
 - Training for healthcare professionals and information sheet for parents

Adaptation and changes to the diabetes body project for paediatric diabetes care

	Diabetes Body Project	Diabetes Body Project Cymru
Age of intervention	Aged 14-35	Aged 11-13
Population	Females with Type 1 Diabetes	All young people with Type 1 Diabetes
Delivery	Experiencing some level of body image concerns	Embedded within routine paediatric diabetes care
Target group	Young People	Young people with supporting information for parents and training for paediatric diabetes team
Underpinning theory	Cognitive dissonance with Cognitive Behaviour Therapy (CBT)	Acceptance Commitment Therapy (ACT) with focus on increasing Psychological Flexibility through building skills around Cognitive Defusion and
To Reduce	Thin ideal	Perfect ideal (including body image and diabetes)
Inclusion of Diabetes	Introduced later in the manual	Included throughout
Structure	6 x 1 hour sessions online	4 x 1.5 hours face to face
Outcome measures	EDDI, HbA1c, TIR Demographics, DEBQ-RS, BDI, PANAS, IBIS-R, PAID, DEPS-R, Health Care Utilisation, T1DAL	HbA1c, TIR Demographics, Parent Reported DEPS-R, SEEDS, CompACT-Y, PAID-T

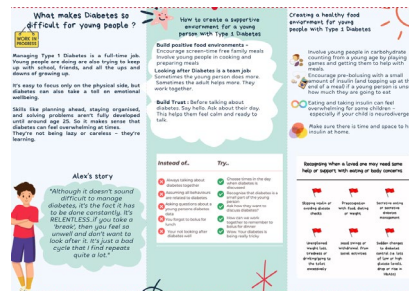
Supporting resources

Carer Information Leaflet

- Complex relationships with food
- Red flags
- Diabetes self care
- Limited evidence base for information sheets delivered in isolation
- Parent reported DEPS-R validity

Health care professional training session

- 2 hour session on supporting healthy relationships with food
- Evidence base and understanding of eating disorders
- Diabetes Body Project Cymru
- Understanding risk
- Relationships in clinic
- Check, Ask, Explain, Consent
- Language matters
- Neurodiversity

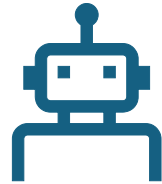


Next steps

Pilot and trial planning



Feasibility embedded in the intervention adaptation, but needs real world trial



Considering what 'success mean's'

Working with others

- Developing research skills and collaboration
- Moving from intervention development to testing



Watch this space...