**Supplementary Material 1.**

At the time of this study NDSS eligibility criteria were:

* Under 21 years of age
* Expected to benefit clinically from the use of CGM
* The person or family/carer has the willingness and capacity to use CGM
* The person or family/carer has the commitment to actively participate in a diabetes management plan which incorporates CGM
* and one or more of:
* more than one episode a year of significant hypoglycaemia requiring external, third party assistance
* impaired awareness of hypoglycaemia
* inability to recognise, or communicate about, symptoms of hypoglycaemia
* significant fear of hypoglycaemia for the young person or a family member/carer which is seriously affecting the health and wellbeing of the young person or contributing to hyperglycaemia as a reaction to this fear.

Supplementary material 2

Understanding the impact of Continuous Glucose Monitoring

General Instructions:

We would like to understand your experience of using a Continuous Glucose Monitoring device (“CGM”).

Your answers will help us to understand both the “upsides” and “downsides” of this technology.

We will ask you these questions before and after you have tried your “CGM”.

For all questions in this survey please circle your answer.

Answer carefully but do not spend too much time on any single question.

Your answers are confidential and you will not be identified in any way. If you have any questions please ask us. Thank you for your assistance.

Pain

How much pain do you experience when doing finger pricks?

0 1 2 3 4 5 6 7 8 9 10

No pain A lot of pain

**Overall**

Overall, has CGM made a difference to your life with diabetes?

0 1 2 3 4 5 6 7 8 9 10

Not difference at all A very big difference

**Your opinion**

What do you like about using a Continuous Glucose Monitor (CGM)?

What do you not like about using a CGM? (e.g. cost, skin irritation, false alarms?)

Do you plan to wear a continuous glucose monitor (please circle your answer):

* I will NOT wear it at all
* Only some of the time (e.g. a few weeks a year)?
* Most of the time (e.g. more than half the year)?
* Almost all of the time?

Is there anything else you would like us to know about CGM?

Thank you for completing this survey

Supplementary material 3: Hypoglycaemia confidence and hypoglycaemia fear at baseline (before continuous glucose monitoring): association with participant characteristics for 40 young adults with type 1 diabetes attending our centre 2017-2019.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | HCS | HFS-T | HFS-B | HFS-W |
|  | Coefficient (95% CI) | p-value | Coefficient (95% CI) | p-value | Coefficient (95% CI) | p-value | Coefficient (95% CI) | p-value |
| Male1 | 0.2 (-0.2 - 0.5) | 0.26 | -2.0 (-6.9 - 2.9) | 0.42 | 0.2 (-2.1 - 2.6) | 0.84 | -2.2 (-5.6 - 1.1) | 0.19 |
| Age /year older | 0.1 (-0.1 - 0.3) | 0.31 | 2.4 (-0.2 - 4.9) | 0.07 | 0.9 (-0.4 - 2.1) | 0.16 | 1.5 (-0.3 - 3.3) | 0.09 |
| University2 | -0.3 (-0.6 - 0.1) | 0.12 | 2.7 (-2.4 - 7.8) | 0.29 | 1.2 (-1.2 - 3.5) | 0.32 | 1.5 (-2.1 - 5.1) | 0.40 |
| Duration of diabetes /5 years longer | **0.2 (0.1 - 0.4)** | **0.007** | -1.5 (-4.2 - 1.2) | 0.26 | -0.4 (-1.6 - 0.9) | 0.55 | -1.2 (-3.0 - 0.7) | 0.22 |
| GAD-7 /5 units higher | -0.1 (-0.2 - 0.1) | 0.29 | **2.8 (1.0 - 4.6)** | **0.003** | 0.7 (-0.2 - 1.6) | 0.11 | **2.1 (0.8 - 3.3)** | **0.002** |

HCS: hypoglycaemia confidence scale. HFS: short form of the hypoglycaemia fear survey II. HFS-T: total, HFS-B: behaviour, HFS-W: worry.

CI: confidence interval.

1Compared to females. 2Compared to completed Grade 12. The 2 participants who had not completed high school are excluded from this analysis only.
Method: Univariable linear regression.

Supplementary material 4: Hypoglycaemia confidence and hypoglycaemia fear change between baseline (before continuous glucose monitoring) and follow-up (after 5-21 months of continuous glucose monitoring): association with participant characteristics for 40 young adults with type 1 diabetes attending our centre 2017-2019.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | HCS | HFS-T | HFS-B | HFS-W |
|  | Coefficient (95% CI) | p-value | Coefficient (95% CI) | p-value | Coefficient (95% CI) | p-value | Coefficient (95% CI) | p-value |
| Male1 | -0.1 (-0.4 - 0.1) | 0.33 | -0.6 (-4.2 - 3.0) | 0.73 | 0.3 (-1.6 - 2.2) | 0.78 | -0.8 (-3.1 - 1.4) | 0.45 |
| Age /year older | -0.1 (-0.2 - 0.1) | 0.21 | -1.6 (-3.5 - 0.4) | 0.11 | -0.2 (-1.2 - 0.9) | 0.72 | -1.2 (-2.3 - 0.0) | 0.06 |
| University2 | 0.0 (-0.4 - 0.3) | 0.76 | 0.0 (-3.8 - 3.7) | 1.00 | -0.9 (-2.9 - 1.2) | 0.40 | 1.1 (-1.2 - 3.4) | 0.34 |
| Duration of diabetes /5 years longer | -0.1 (-0.2 - 0.1) | 0.41 | -0.6 (-2.6 - 1.4) | 0.53 | -0.2 (-1.2 - 0.9) | 0.77 | -0.5 (-1.8 - 0.7) | 0.39 |
| GAD-7 /5 units higher | 0.0 (-0.2 - 0.1) | 0.44 | 0.6 (-1.0 - 2.2) | 0.44 | 0.5 (-0.3 - 1.3) | 0.22 | 0.2 (-0.8 - 1.3) | 0.64 |

HCS: hypoglycaemia confidence scale. HFS: short form of the hypoglycaemia fear survey II. HFS-T: total, HFS-B: behaviour, HFS-W: worry.

CI: confidence interval.

1Compared to females. 2Compared to completed Grade 12. The 2 participants who had not completed high school are excluded from this analysis only.
Method: linear regression adjusted for baseline values.