

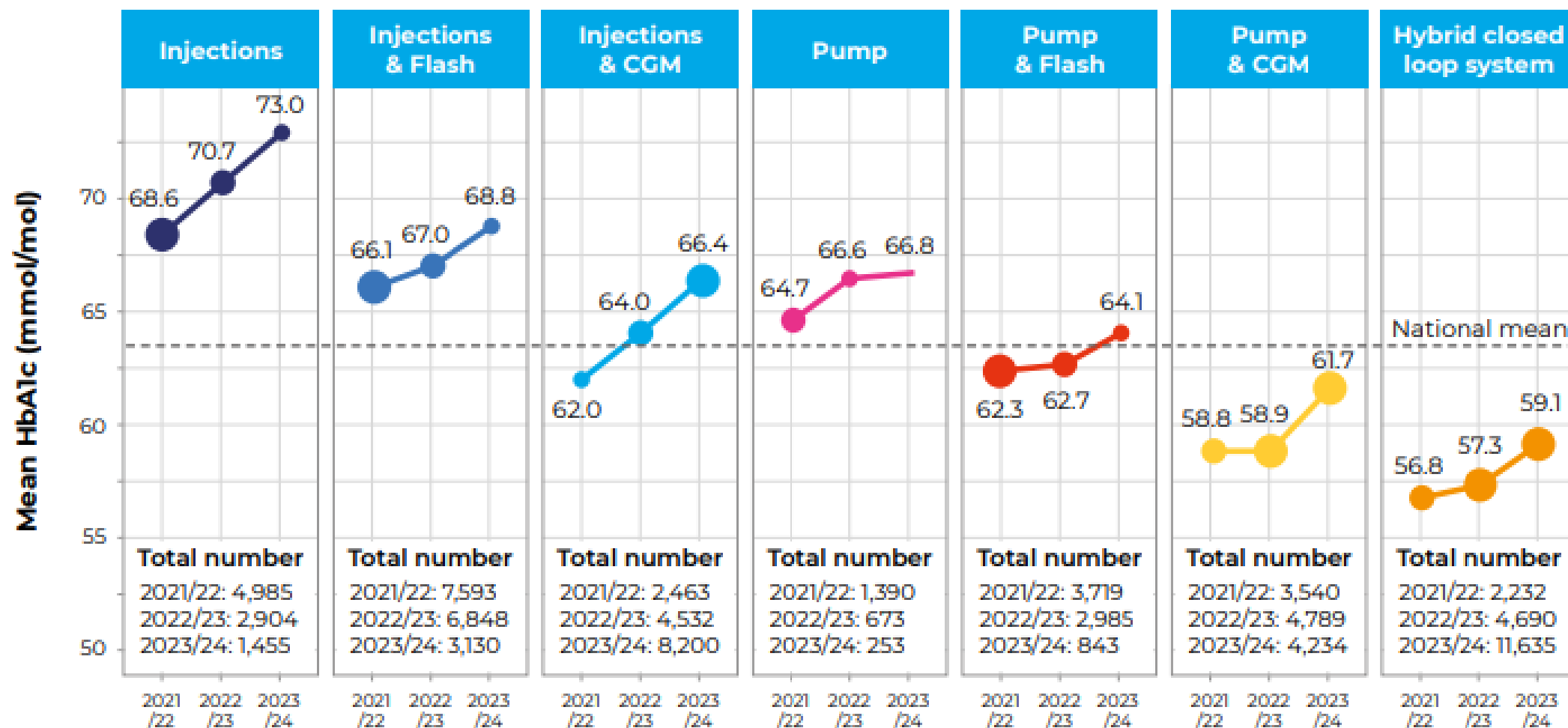


# Tackling the psychological challenges of children and young people using diabetes technology



NCYPDN Psychology Network

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**Figure 8:** Mean HbA1c for children and young people with Type 1 diabetes using different combinations of treatment regimen and glucose monitoring in 2021/22 - 2023/24. Circle size represents the number of children and young people.

# Psychological impact of HCL

Ng et al. *BMC Medicine* (2024) 22:175  
<https://doi.org/10.1186/s12916-024-03396-x>

BMC Medicine

October 11, 2021

RESEARCH ARTICLE

Open Access



Long-term assessment of the NHS hybrid closed-loop real-world study on glycaemic outcomes, time-in-range, and quality of life in children and young people with type 1 diabetes

Sze May Ng<sup>1,2,3\*</sup>, Neil P. Wright<sup>4</sup>, Diana Yardley<sup>5</sup>, Fiona Campbell<sup>6</sup>, Tabitha Randell<sup>7</sup>, Nicola Trevelyan<sup>8</sup>, Atrayee Ghatak<sup>9</sup> and Peter C. Hindmarsh<sup>10</sup>

## Effect of a Hybrid Closed-Loop System on Glycemic and Psychosocial Outcomes in Children and Adolescents With Type 1 Diabetes

A Randomized Clinical Trial

Mary B. Abraham, PhD<sup>1,2,3</sup>; Martin de Bock, PhD<sup>1,2,3</sup>; Grant J. Smith, MPsych<sup>2</sup>; et al

[» Author Affiliations](#) | [Article Information](#)

*JAMA Pediatr.* 2021;175(12):1227-1235. doi:10.1001/jamapediatrics.2021.3965

## Glucose control and psychosocial outcomes with use of automated insulin delivery for 12 to 96 weeks in type 1 diabetes: a meta-analysis of randomised controlled trials

[Amanda Godoi](#) ✉, [Isabela Reis Marques](#), [Eduardo M. H. Padrão](#), [Ashwin Mahesh](#), [Larissa C. Hespanhol](#), [José Eduardo Riceto Loyola Júnior](#), [Isabela A. F. de Souza](#), [Vittoria C. S. Moreira](#), [Caroliny H. Silva](#), [Isabele A. Miyawaki](#), [Christi Oommen](#), [Cintia Gomes](#), [Ariadne C. Silva](#), [Kavita Advani](#) & [Joao Roberto de Sa](#)

*Diabetology & Metabolic Syndrome* 15, Article number: 190 (2023) | [Cite this article](#)

3589 Accesses | 3 Altmetric | [Metrics](#)

# Psychological impact of HCL

> [Eur J Pediatr.](#) 2024 Jul;183(7):3095-3103. doi: 10.1007/s00431-024-05551-1. Epub 2024 Apr 25.

## The psychosocial outcomes of advanced hybrid closed-loop system in children and adolescents with type 1 diabetes

Arzu Jalilova <sup>1</sup>, Birsen Şentürk Pılan <sup>2</sup>, Günay Demir <sup>3</sup>, Burcu Özbaran <sup>2</sup>, Hanife Gul Balkı <sup>3</sup>, Emrullah Arslan <sup>3</sup>, Sezen Gökçen Köse <sup>2</sup>, Samim Özen <sup>3</sup>, Şükran Darcan <sup>3</sup>, Damla Gökşen <sup>3</sup>

Affiliations + expand

PMID: 38661816 PMID: PMC11192657 DOI: 10.1007/s00431-024-05551-1

ORIGINAL ARTICLE | SEPTEMBER 13 2024

## Glycemic and Psychosocial Outcomes of Advanced Hybrid Closed-Loop Therapy in Youth With High HbA<sub>1c</sub>: A Randomized Clinical Trial **FREE**

Mary B. Abraham  ; Grant J. Smith; Julie Dart; Antony Clarke; Keely Bebbington; Janice M. Fairchild; Geoffrey R. Ambler; Fergus J. Cameron; Elizabeth A. Davis; Timothy W. Jones



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<https://doi.org/10.2337/dc24-0276> **Article history** 

PubMed:39269686

# Our observations

## Positives

- Reassurance
- Reduced anxiety (about high/low BGLs)
- Improved sleep
- More confidence
- ‘Time off’ from diabetes demands

## Negatives

- Overwhelmed with data
- More anxious and unable to tolerate high or low levels
- Young people wanting to come off HCL (because of all the alarms)
- Don't want to start
  - “I’m managing well enough already”
  - Don't trust the technology
  - “I don't want something attached to me”

# Our aim

**To produce a psychological considerations document for health care professionals, to support CYPF starting on, and successfully living with HCL (and other tech)**

- Skilling up health care professionals to be aware of the psychological factors/barriers to successful HCL starts and living with diabetes technology
- Increase chances of CYP wanting to start tech and stay on tech
- Support services who don't have access to psychology
- Indirectly reducing inequalities

# What we are aiming to cover

Promoting  
adjustment to  
pump

Tailoring  
diabetes  
education

Managing  
expectations

Working with  
anxiety

Assessing  
Technology  
literacy

How to talk  
about tech

Tolerating  
uncertainty

Loss of control

Dealing with  
tech in school

Alarm fatigue

Surveillance vs  
privacy

Body image  
worries

Perfectionism

Neurodiversity

Managing data  
panic

Is there anything else important to include?



# Working party members

- Michael Cornish
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- Craig Harris
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- Sarah Wicks
- Anna East
- Georgina Ottaway
- Laura Bohane
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- Lucy Parkin
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