Materials and Methods

CSII-QOL

The CSII-QOL is a recently developed QOL scale specific to CSII, and is a validated and reliable instrument[14]. The 25-item questionnaire has a three-domain structure ("convenience", "social restriction", and "psychological problems"), high internal consistency (Cronbach's alpha = 0.870), and substantial test-retest reliability (intraclass correlation coefficient = 0.65).

Table S1. The 20 items of PAID at baseline

Variables	Total	Adherent	Non-adherent	P-value
1	1.2 (1.1)	1.3 (1.3)	0.9 (0.8)	0.248
2	1.5 (1.2)	1.5 (1.3)	1.4 (1.2)	0.959
3	2.1 (1.3)	2.1 (1.4)	1.9 (1.1)	0.518
4	1.0 (1.1)	1.1 (1.0)	0.8 (1.1)	0.256
5	1.1 (1.0)	1.3 (1.1)	0.9 (0.8)	0.222
6	1.9 (1.3)	2.2 (1.3)	1.6 (1.2)	0.089
7	1.6 (1.1)	1.9 (1.1)	1.1 (0.9)	0.019*
8	1.3 (1.1)	1.4 (1.2)	1.1 (1.0)	0.423
9	2.3 (1.2)	2.5 (1.2)	1.9 (1.2)	0.103
10	1.3 (1.1)	1.5 (1.2)	1.0 (1.1)	0.184
11	1.5 (1.2)	1.9 (1.2)	0.9 (0.9)	0.004*
12	2.9 (0.8)	2.9 (0.8)	2.8 (0.6)	0.674
13	1.9 (1.1)	2.3 (1.1)	1.3 (0.8)	0.001*
14	0.7 (0.9)	0.9 (1.1)	0.6 (0.7)	0.396
15	0.3 (0.6)	0.2 (0.4)	0.5 (0.7)	0.134
16	1.5 (1.2)	1.7 (1.1)	1.3 (1.2)	0.253
17	0.6 (0.9)	0.6 (0.8)	0.7 (1.0)	0.668
18	0.7 (0.8)	0.9 (0.8)	0.5 (0.8)	0.159
19	1.4 (1.3)	1.8 (1.3)	0.9 (1.0)	0.034*
20	1.0 (1.0)	1.3 (1.0)	0.6 (0.9)	0.018*

Data are presented as the mean (SD) or number.

*$P < 0.05$

Table S2. Responses of severe distress to the 20 items

Query number	Total (n=46)	Adherent (n=28)	Non-adherent (n=18)	P-value
1	13.0	21.4	0.0	0.035
2	26.1	25.0	28.0	0.834
3	47.8	50.0	44.0	0.713
4	13.0	14.3	11.0	0.755
5	8.7	14.3	0.0	0.093
6	41.3	46.4	33.0	0.379
7	19.6	32.1	0.0	0.007*
8	13.0	17.9	6.0	0.277
9	45.7	50.0	39.0	0.460
10	13.0	14.3	11.0	0.755
11	23.9	35.7	6.0	0.019
12	76.1	71.4	83.0	0.356
13	30.4	50.0	0.0	<0.001*
14	4.3	7.1	0.0	0.246
15	0.0	0.0	0.0	N. A.
16	26.1	32.1	17.0	0.243
17	4.3	3.6	6.0	0.747
18	2.2	3.6	0.0	0.418
19	17.8	25.0	6.0	0.104
20	10.9	14.3	6.0	0.353

Data are percentages.

N.A.: not available.

*$P < 0.05$

Table S3. Correlation between diabetic retinopathy and PAID score

	PAID (Baseline)	Spearman's rank correlation coefficient	*P*-value
Background retinopathy	35.0 (19.0)	0.003	0.986
Pre-proliferative retinopathy	36.0 (19.0)		
Proliferative retinopathy	31.3 (N. A.)		
Post-photocoagulation	32.9 (10.6)		

Data are presented as the mean (SD) or number.

N. A.: not available.

Table S4. Usage of various insulin pump functions

Variables	Total n (%)	Adherent n (%)	Non-adherent n (%)	P-value
Bolus calculator				
Baseline	33 (76.7)	21 (77.8)	12 (75.0)	>0.999
1-year	36 (83.7)	24 (88.9)	12 (75.0)	0.394
P-value	0.508	0.453	>0.999	
Square-wave bolus				
Baseline	22 (52.4)	14 (53.8)	8 (50.0)	>0.999
1-year	20 (47.6)	12 (46.2)	8 (50.0)	>0.999
P-value	0.688	0.625	>0.999	
Dual-wave bolus				
Baseline	14 (34.1)	9 (34.6)	5 (33.3)	>0.999
1-year	21 (51.2)	16 (61.5)	5 (33.3)	0.107
P-value	0.016*	0.016*	>0.999	
Temporary basal				
Baseline	31 (72.1)	18 (66.7)	13 (81.3)	0.315
1-year	32 (74.4)	19 (70.0)	13 (81.3)	0.494
P-value	>0.999	>0.999	>0.999	

Data are presented as the mean (SD) or number.

*$P < 0.05$