

Supplementary Table 1 Pedro Quality Analysis Results:

1st author last name +/-et al. (year)	Randomisation	Allocation concealed	Groups similar at baseline	Subjects blinded	Therapists blinded	Assessors blinded	Key outcome obtained from 85% participants	Intention to treat' analysis used	Between group' statistical comparison	Provides point measures and measures of variability	Total score
Alanzi 2018	1	0	0	0	0	0	1	1	1	1	5
Arora 2014	1	0	0	0	0	0	0	1	1	1	4
Bujnowska-Fedak 2011	1	0	1	0	0	0	1	0	1	1	5
Cho 2017	1	0	1	0	0	0	1	1	1	1	6
Crowley 2016	1	0	1	0	0	0	1	1	1	1	6
Dafoulas 2014	1	0	0	0	0	1	1	0	1	1	5
Dario 2016	1	0	1	0	0	0	0	1	1	1	5
Fortmann 2017	1	0	1	0	0	0	1	1	1	1	6
Fountoulakis 2015	1	0	1	0	0	0	1	0	1	1	5
Holmen 2014	1	0	1	0	0	0	0	1	1	1	5
Jeong 2018	1	0	1	0	0	0	1	1	1	1	6
Kempf 2017	1	0	1	1	1	0	1	1	1	1	8
Kim 2007	1	0	1	0	0	0	1	0	1	1	5
Kim 2008	1	0	1	0	0	0	1	0	1	1	5
Kim 2016	1	0	1	0	0	0	0	0	1	1	4
Kim 2019	1	0	1	0	0	0	1	0	1	1	5
Kleinman 2017	1	1	1	0	0	1	0	1	1	1	7
Lee 2019	1	0	1	0	0	1	1	1	1	1	7
Lim 2016	1	0	1	0	0	0	1	0	1	1	5
Liou 2014	1	0	1	0	0	0	1	0	1	1	5
Luley 2011	1	0	1	0	0	0	1	0	1	1	5
Nicolucci 2015	1	0	1	0	0	0	0	0	1	1	4
Or 2020	1	1	1	0	0	0	1	1	1	1	7
Orsama 2013	1	0	1	0	0	0	1	0	1	1	5
Pacaud 2012	1	0	0	0	0	0	1	1	1	1	5
Pressman 2014	1	0	1	0	0	1	1	0	1	1	6
Quinn 2016	1	0	0	0	0	0	1	0	1	1	4
Ramadas 2018	1	0	1	0	1	0	1	1	1	1	7
Rodriguez-Idigoras 2009	1	1	1	0	0	0	1	1	1	1	7
Shea 2009	1	0	0	0	0	1	0	1	1	1	5
Stone 2009	1	0	1	0	0	1	1	1	1	1	7
Sun 2019	1	0	1	0	0	0	1	0	1	1	5
Tang 2013	1	0	1	0	0	1	1	1	1	1	7
Vinitha 2019	1	0	1	0	0	0	1	1	1	1	6
Wang 2017	1	0	1	0	0	0	0	0	1	1	4
Wang 2018	1	0	0	0	0	0	1	1	1	1	5
Wayne 2015	1	0	1	0	0	0	0	1	1	1	5
Welch 2011	1	0	1	0	0	0	0	0	1	1	4
Whittemore 2020	1	0	1	0	0	1	1	1	1	1	7
Wild 2016	1	0	1	0	0	1	1	1	1	1	7
Williams 2012	1	0	0	0	0	0	1	1	1	1	5
Xu 2019	1	0	1	0	0	0	0	1	1	1	5
Yip 2002	1	0	1	1	0	0	0	0	1	1	5

Supplementary Table 2 Intervention Characteristics Subgroups

Mode of Telemedicine Intervention	Definition
Text message	Short-message-service via mobile phone. Live or automated messages.
Mobile Application	Interactive application used on a smartphone.
Interactive Telephone System	Automated interactive telephone system that is not simply a traditional telephone call.
Online Server	Transmission of data to clinicians via internet server (may involve Bluetooth).
Website	Online content in the form of web pages accessed under a common domain name.
Videoconference	Use of live video and audio to communicate with others.
Tablet/device	Interactive use of a tablet or similar portable device.
Duration of Intervention	
< 6 months	Length of time of intervention, from first interaction to final interaction. (Not necessarily follow-up time, which may be shorter or longer than the intervention duration)
6 months	
> 6 months < 12 months	
≥ 12 months	
Focus of the intervention	Definition
Biomedical Parameters	Focus on monitoring or modifying clinical measurements (eg. blood glucose, weight, blood pressure)
Self-management Behaviours	Focus on monitoring or modifying patient activities and behaviours (eg. Exercise, diet, self-monitoring of glucose, education, disease knowledge, self-care behaviours)
Biomedical parameters + Self-management Behaviours	Combination of both
Model of Intervention	Definition
Behaviour Change	Aim to improve patient activities and behaviours (eg. Exercise, diet, self-monitoring glucose)
Clinical Treatment	Aim to monitor and treat patients (eg. monitor blood glucose for out of range, adjust medications, monitor for complications)

Behaviour Change + Treatment Combination	Combination of both
Type of Telemedicine	Definition
Telemonitoring	Remote monitoring of clinical measurements
Tele-education	Remote provision of education or advice for patients.
Telemonitoring + Tele-education	Combination of both (eg.. monitoring of clinical measurements and feedback provided to improve.)
Intervention-lead	Definition
Doctor	Doctor, physician.
Nurse	Nurse, nurse practitioner.
Multi-disciplinary Team	2 or more different leads, team-led.
Allied health	Diabetes educator, dietician or councillor
Drop-out Rate	Definition
0-9.9%	Intervention group drop-out rate (not combined drop out rate)
10%-19.9%	
≥20%	
Frequency of Intervention	Definition
Daily	Daily interaction
> Daily < weekly	eg. twice weekly
Weekly	Weekly interaction
> Weekly	eg. fortnightly, monthly.
Intervention Engagement	Definition
≤ 70%	Proportion of patients that engage/participate in the intervention to the level intended, or the average rate of engagement/participation across all patients in the intervention group.
>70%	

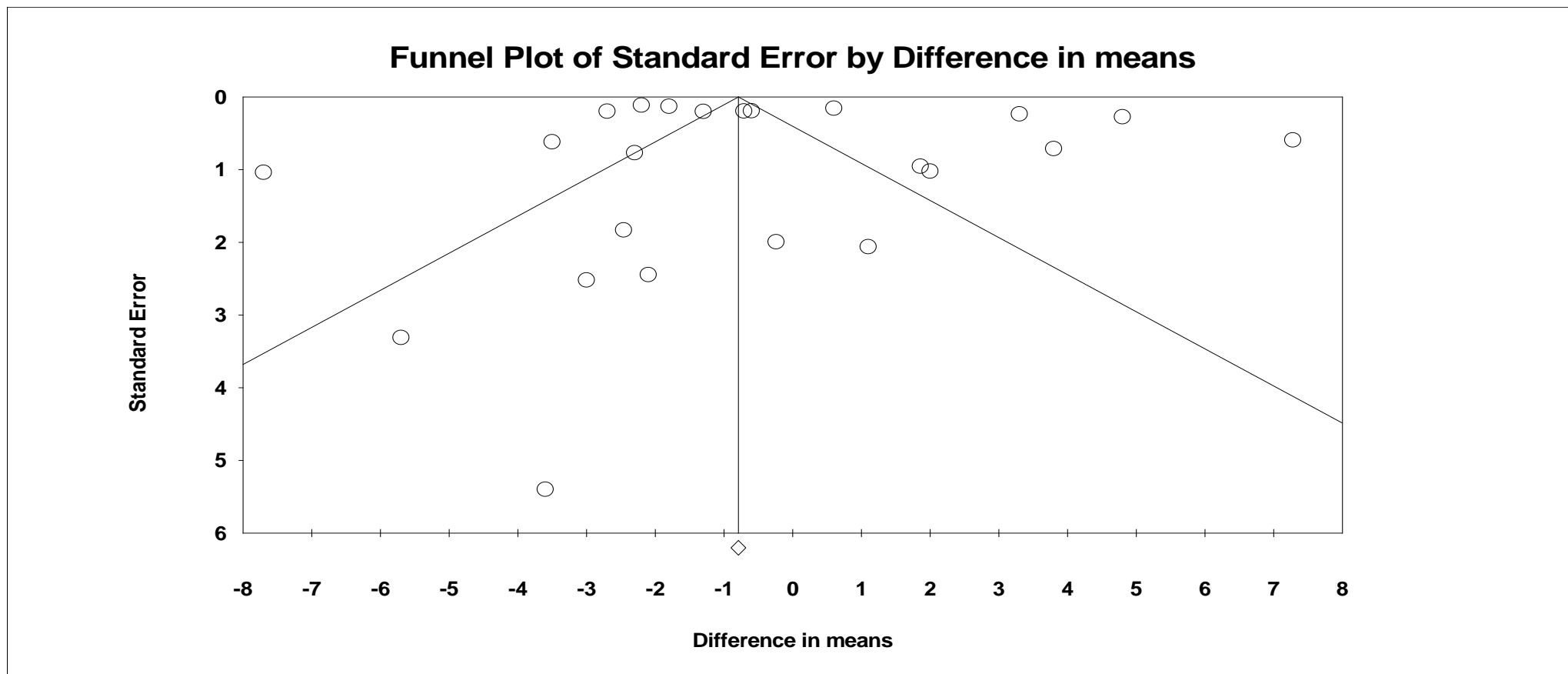
Supplementary Table 3 Self-care Outcome Subgroups

Self-care: Medication Adherence	Definition
No significant difference	Post-intervention medication adherence.
Intervention significantly better than control	
Self-care: Disease Knowledge	Definition
No significant difference	Post-intervention disease knowledge.
Intervention significantly better than control	
Self-care: Behaviour change	Definition
No significant difference	Post-intervention behaviour change.
Intervention significantly better than control	
Self-care: Self-Glucose Monitoring	Definition
No significant difference	Post-intervention self-glucose monitoring.
Intervention significantly better than control	
Hospital Visits	Definition
No significant difference	Post-intervention total hospital visits over the measure period.
Intervention significantly better than control	
Self-care: Self-efficacy	Definition
No significant difference	Post-intervention self-efficacy.
Intervention significantly better than control	
Self-care: Nutrition/Diet	Definition
No significant difference	Post-intervention eating habits.
Intervention significantly better than control	
Self-care: Exercise	Definition
No significant difference	Post-intervention measured exercise.
Intervention significantly better than control	

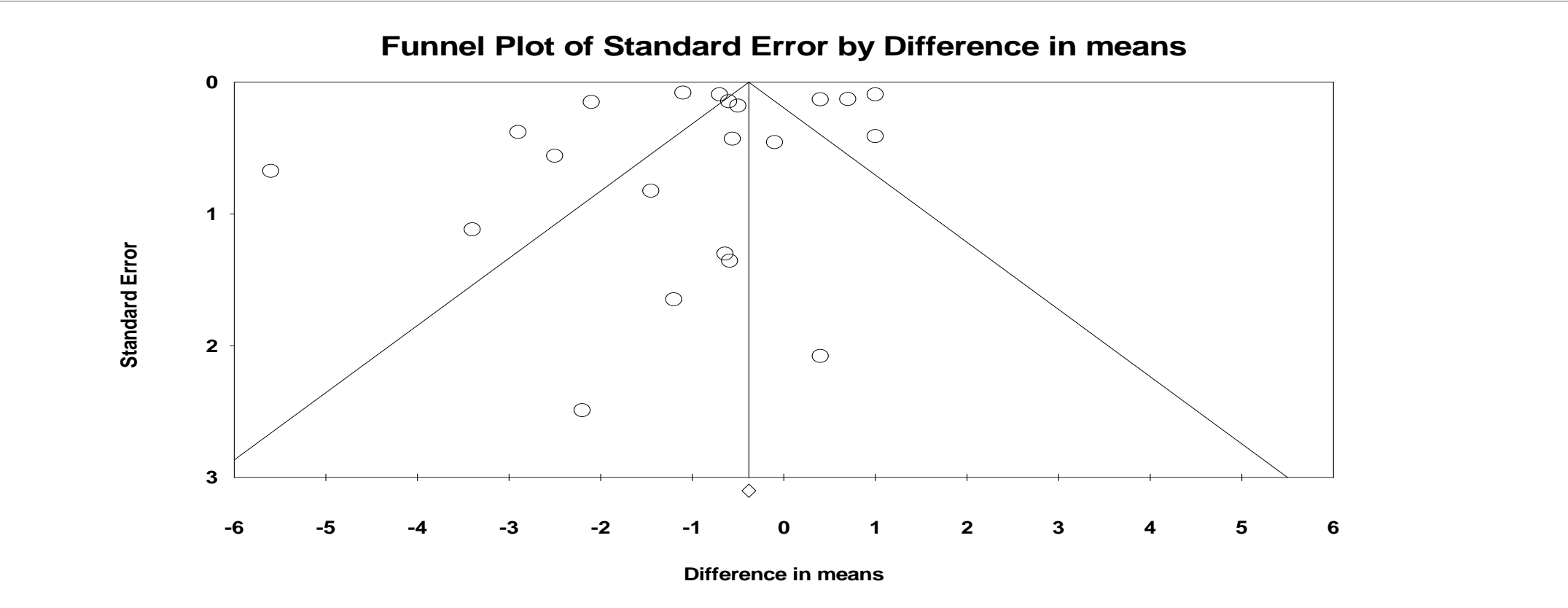
Supplementary Table 4 Patient Characteristics Subgroups

Racial Group	Definition
Hispanic	Explicitly recruited only Hispanic patients.
Chinese	Explicitly recruited only Chinese patients.
Comorbid Disease	Definition
Overweight/obese	BMI \leq 25
Hypertension	Physician diagnosed hypertension

Supplementary Figure 1



Supplementary Figure 1 (A) Funnel plot for systolic blood pressure (SBP)



Supplementary Figure 1 (B) Funnel plot for diastolic blood pressure (DBP)