Supplementary File 1

URL to search strategy links below

https://www.crd.york.ac.uk/PROSPEROFILES/267019_STRATEGY_20210726.pdf

Supplementary table1

Supplementary table 1 Characteristics of interventions (n=27) ordered chronologically

author, year	Providers	context	Approach	Monthly intervention frequency	Longest duration of intervention
Whitlock,2000	a nurse case manager and two physicians	All diabetic care choices for patients in the intervention groups were made by two physicians. The case manager reinforced care plans with the patients and consulted with the physicians weekly.	Videoconference	4.00	3 months
Oh,2003	researcher	The intervention included frequent self-monitoring of blood glucose levels, as well as ongoing education and reinforcement of dietary, exercise, and medication adjustments.	Telephone	5.33	3 months
Kim,2003	a nursing PhD student	The patient is contacted by a nursing PhD candidate. Based on the respondents' eating and activity habits, a licensed dietician examined the individuals' daily food consumption and provided suggestions for proper diabetic dietary control. The subjects were then mailed the findings and dietary advice.	Telephone	5.33	3 months
Shea,2005	a registered nurse	Registered nurses (RNs) provide telemedicine visits with remote blood pressure (BP) and blood sugar monitoring using telemedicine home units (HTU).	Videoconference	NA	1 year

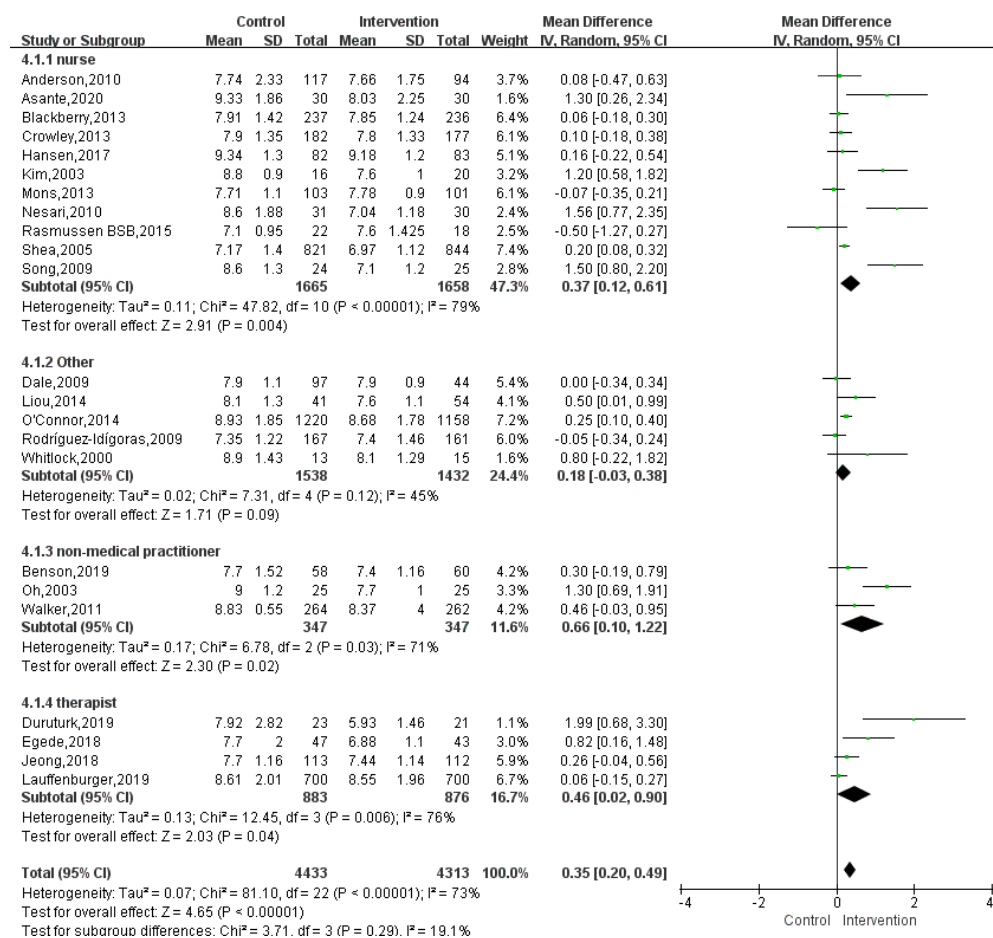|					
Eakin,2009	masters-level graduates with a background in nutrition	The calls covered a variety of topics, such as assessment (and feedback), suggestions for improving physical activity and food, help setting goals and creating a tailored strategy for doing so, and setting up follow-up support in the form of more phone calls.	Telephone	NA	12 months
Dale,2009	a diabetic specialist nurse/peer supporter	When a modification is made in the patient's diabetes management (medication and/or lifestyle), motivational telephone support encourages adherence to the recommendations made by the general practitioner or practice nurse.	Telephone	0.75	up to 6 months
Song,2009	diabetes education nurse(researcher)	The researcher assessed and improved patient adherence to the advised diet, exercise, and medication (dosages for which were modified by the endocrinologist), as well as suggested hospital visits. The researcher also monitored glycemic control (SMBG) and symptoms.	Telephone	4.00	3 months
Rodríguez-Idí goras,2009	a physician and a nurse with expertise in diabetes and diabetes education	Transmission of blood glucose data in real-time, with prompt response as necessary, telephone consultations, telephone consultations	Telephone	NA	1 year

Huizinga,2010	nurse practitioners and dietitians	Participants received assistance from the providers with medication titration, issue identification and resolution, and self-care behaviors such as nutrition, exercise, blood glucose self-monitoring, and medication adherence.	Telephone	NA	2 years
Anderson,2010	nurse	Discuss the issues brought up by the patient, including a brief clinical assessment, self-management (including diet, exercise, stress reduction, smoking cessation, readiness assessment, and development of specific self-management goals), medication adherence (including problem-solving to help with adherence), glucose monitoring, and a review of the results of home glucose monitoring.	Telephone	NA	1 year
Nesari,2010	nurse	Every time a phone call was made, participants' questions were addressed, education was reinforced, and health habits including diet, exercise, medication use, foot care, and routine blood sugar monitoring were examined. If there was non-adherence, the circumstance was examined to determine the reason and address it.	Telephone	5.33	3 months

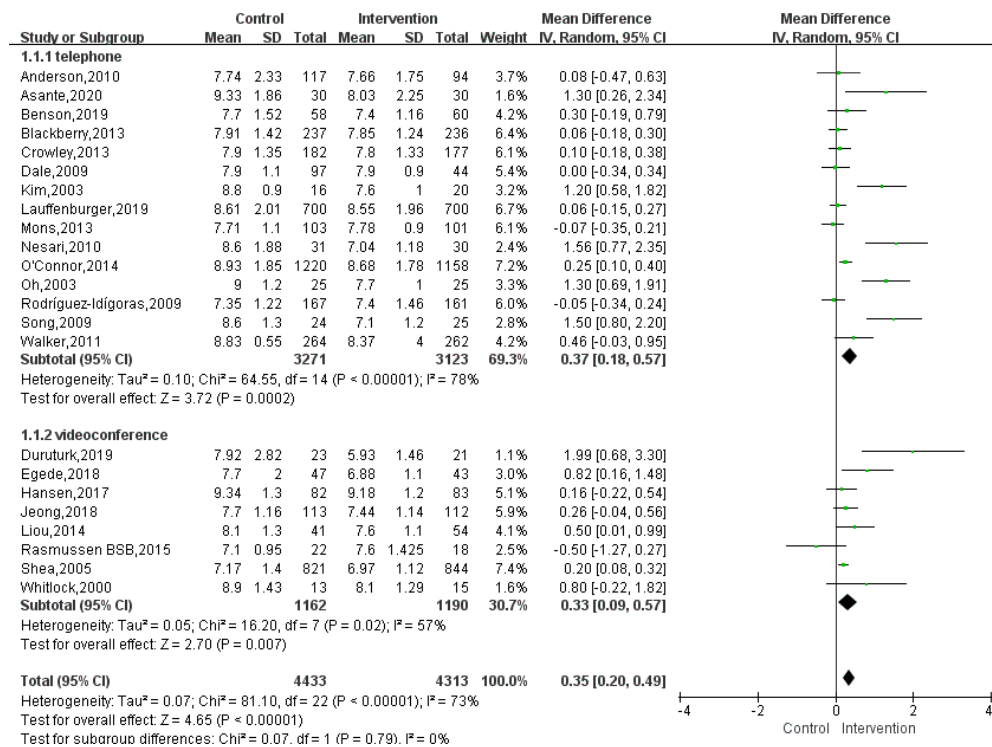|					
Walker,2011	health educator	Focused first on diabetic medication compliance and secondarily on dietary and exercise modifications to promote a healthy lifestyle. Communication skills, goal setting, problem-solving, and planning ahead for medical appointments were crucial components of the intervention.	Telephone	0.83	1 year
Blackberry,2013	practice nurses	With the aim of addressing lifestyle issues, medication adherence and dosage, self-monitoring of their disease, and how to take greater initiative in the therapeutic alliance with the treating doctor, the intervention provides structured telephone coaching to pre-patients. This facilitates appropriate intensification of medications to achieve treatment goals.	Telephone	0.47	15 months
Crowley,2013	nurse	Phone call include behavioral and a medication management	Telephone	1.00	1 year

Mons,2013	practice nurses	The goal of supportive telephone-based counseling is to encourage patients to change their general health behaviors while also identifying obstacles to diabetes treatment and self-management on their side and facilitating the early diagnosis of complications related to diabetes.	Telephone	1.00	18 months
O' Connor,2014	a diabetes educator, nurse health manager, diabetes educator trainee, or pharmacist	A single protocol-structured phone call was made to the individual to see if they had begun taking the new medicine. The interventionist enquired into the patient's reasons for nonadherence and worked with them to identify and remove obstacles to adherence if the new medicine prescription had not been filled or had been filled but the patient was not taking it as prescribed.	Telephone	2.00	1.5 months
Liou,2014	a dietitian, a nurse, and a diabetic specialist	Educating the patient about their diabetes, including the importance of food, medication, and stress management.	Videoconference	1.00	6 months
Eakin,2014	counselors	The intervention focused on behavior modification techniques and used a motivational interviewing methodology based on the social cognitive theory categories of self-efficacy, social support, and outcome expectancies.	Telephone	NA	18 months
Rasmussen BSB,2015	two nurses	Following a preliminary examination in the outpatient department, the telemedicine group carried out blood pressure, cholesterol, blood sugar, and lipid monitoring and education	Videoconference	0.68	6 months

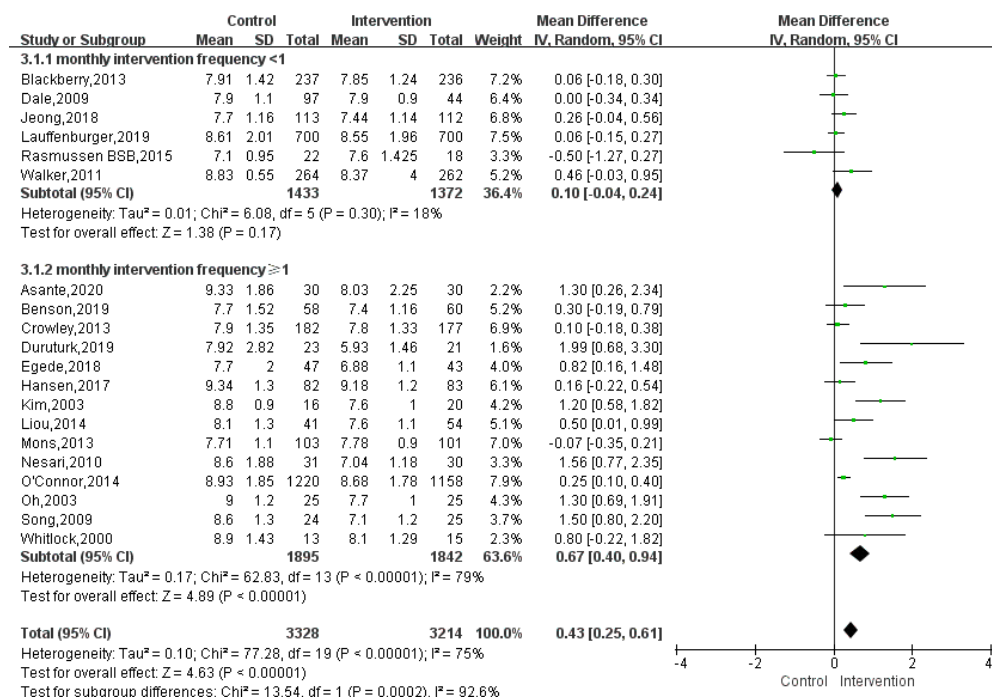|					
Rasmussen OW,2016	inpatient clinic's specially trained municipal nurses and doctors	Substituting home visits from a visiting nurse and telemedicine consults with the specialized doctor for two out of every three patient visits to the hospital's outpatient clinic.	Telephone	NA	The study end points were defined as complete ulcer healing, amputation, or death.
Hansen,2017	nurse	The intervention was built on the idea of empowerment and was designed to help participants take charge of their own illness management and control.	Videoconference	1.00	8 months
Jeong,2018	physicians	Assessed patients and prescribed medicines delivered to each individual's home	Videoconference	0.33	6 months
Egede,2018	therapist	Receive telemedicine-delivered behavior activation treatment (BAT)	Videoconference	4.00	1 year
Benson,2019	a registered dietitian/certified diabetes educator	Provides counseling on lifestyle to improve diabetes and overall health	Telephone	1.00	1 year
Lauffenburger,2019	a trained clinical pharmacist	To identify patient objectives and choices for improving diabetes care, the intervention consisted of a two-step procedure that combined brief negotiated questioning and collaborative decision-making.	Telephone	0.33	1 year
Duruturk,2019	a physiotherapist	Supervising the TR group as they execute 16 distinct, rhythmic exercises for the lower and upper limb muscles, as well as breathing exercises and calisthenics.	Videoconference	12.00	1.5 months
Asante,2020	a registered nurse assisting a diabetes specialist nurse	Reinforce the rules by providing information on foot care, medication taking, food, exercise, and self-monitoring of blood sugar.	Telephone	5.33	3 months

Supplemental material

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Supplementary Figure1: Forest plot of HbA1c comparison by type of providers

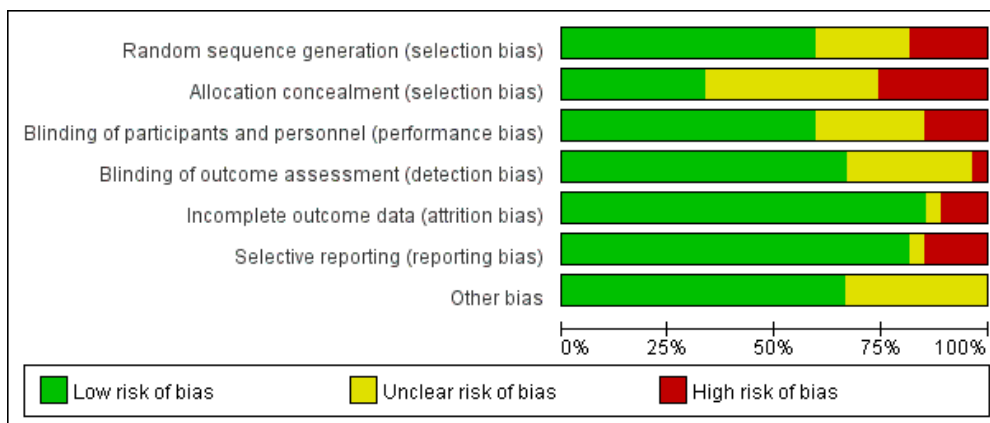| Study or Subgroup	Control Mean	SD	Total	Intervention Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
4.1.1 nurse								
Anderson,2010	7.74	2.33	117	7.66	1.75	94	3.7%	0.08 [-0.47, 0.63]
Asante,2020	9.33	1.86	30	8.03	2.25	30	1.6%	1.30 [0.26, 2.34]
Blackberry,2013	7.91	1.42	237	7.85	1.24	236	6.4%	0.06 [-0.18, 0.30]
Crowley,2013	7.9	1.35	182	7.8	1.33	177	6.1%	0.10 [-0.18, 0.38]
Hansen,2017	9.34	1.3	82	9.18	1.2	83	5.1%	0.16 [-0.22, 0.54]
Kim,2003	8.8	0.9	16	7.6	1	20	3.2%	1.20 [0.58, 1.82]
Mons,2013	7.71	1.1	103	7.78	0.9	101	6.1%	-0.07 [-0.35, 0.21]
Nesari,2010	8.6	1.88	31	7.04	1.18	30	2.4%	1.56 [0.77, 2.35]
Rasmussen BSB,2015	7.1	0.95	22	7.6	1.425	18	2.5%	-0.50 [-1.27, 0.27]
Shea,2005	7.17	1.4	821	6.97	1.12	844	7.4%	0.20 [0.08, 0.32]
Song,2009	8.6	1.3	24	7.1	1.2	25	2.8%	1.50 [0.80, 2.20]
Subtotal (95% CI)			**1665**			**1658**	**47.3%**	**0.37 [0.12, 0.61]**
Heterogeneity: Tau² = 0.11; Chi² = 47.82, df = 10 (P < 0.00001); I² = 79%								
Test for overall effect: Z = 2.91 (P = 0.004)								
4.1.2 Other								
Dale,2009	7.9	1.1	97	7.9	0.9	44	5.4%	0.00 [-0.34, 0.34]
Liou,2014	8.1	1.3	41	7.6	1.1	54	4.1%	0.50 [0.01, 0.99]
O'Connor,2014	8.93	1.85	1220	8.68	1.78	1158	7.2%	0.25 [0.10, 0.40]
Rodríguez-Idígoras,2009	7.35	1.22	167	7.4	1.46	161	6.0%	-0.05 [-0.34, 0.24]
Whitlock,2000	8.9	1.43	13	8.1	1.29	15	1.6%	0.80 [-0.22, 1.82]
Subtotal (95% CI)			**1538**			**1432**	**24.4%**	**0.18 [-0.03, 0.38]**
Heterogeneity: Tau² = 0.02; Chi² = 7.31, df = 4 (P = 0.12); I² = 45%								
Test for overall effect: Z = 1.71 (P = 0.09)								
4.1.3 non-medical practitioner								
Benson,2019	7.7	1.52	58	7.4	1.16	60	4.2%	0.30 [-0.19, 0.79]
Oh,2003	9	1.2	25	7.7	1	25	3.3%	1.30 [0.69, 1.91]
Walker,2011	8.83	0.55	264	8.37	4	262	4.2%	0.46 [-0.03, 0.95]
Subtotal (95% CI)			**347**			**347**	**11.6%**	**0.66 [0.10, 1.22]**
Heterogeneity: Tau² = 0.17; Chi² = 6.78, df = 2 (P = 0.03); I² = 71%								
Test for overall effect: Z = 2.30 (P = 0.02)								
4.1.4 therapist								
Duruturk,2019	7.92	2.82	23	5.93	1.46	21	1.1%	1.99 [0.68, 3.30]
Egede,2018	7.7	2	47	6.88	1.1	43	3.0%	0.82 [0.16, 1.48]
Jeong,2018	7.7	1.16	113	7.44	1.14	112	5.9%	0.26 [-0.04, 0.56]
Lauffenburger,2019	8.61	2.01	700	8.55	1.96	700	6.7%	0.06 [-0.15, 0.27]
Subtotal (95% CI)			**883**			**876**	**16.7%**	**0.46 [0.02, 0.90]**
Heterogeneity: Tau² = 0.13; Chi² = 12.45, df = 3 (P = 0.006); I² = 76%								
Test for overall effect: Z = 2.03 (P = 0.04)								
Total (95% CI)			**4433**			**4313**	**100.0%**	**0.35 [0.20, 0.49]**
Heterogeneity: Tau² = 0.07; Chi² = 81.10, df = 22 (P < 0.00001); I² = 73%								
Test for overall effect: Z = 4.65 (P < 0.00001)								
Test for subgroup differences: Chi² = 3.71, df = 3 (P = 0.29), I² = 19.1%								

Supplementary Figure2: Forest plot of HbA1c comparison by Medium of teleconsultation

Supplementary Figure3: Forest plot of HbA1c comparison by frequency of teleconsultation

Supplementary Figure4: Risk of bias graph

Supplementary Figure5: Risk of bias summary

Supplemental material

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