Appendix A. Operational Definitions

Behavioral Program

An organized, multicomponent diabetes-specific program with repeated interactions by one or more trained individuals, with a duration of ≥4 weeks, to improve disease control and/or patient health outcomes, and consisting of at least one of: a) diabetes self-management education (DSME); b) a structured dietary intervention (related to any of weight loss, glycemic control, or reducing risk for complications) together with one or more additional components; or c) a structured exercise or physical activity intervention together with one or more additional components. Additional components for (b) and (c) above may include interventions related to: diet or physical activity; behavioral change (including but not limited to goal setting, problem solving, motivational interviewing, coping skills training, cognitive behavioral therapy strategies); relaxation or stress reduction; blood glucose regulation; medication adherence; or self-monitoring for diabetic complications (foot, eye and renal tests).

Interventions must include contact with those delivering the program, rather than sole reliance on "interactive behavior change technology" (e.g., patient-centered websites, automated telephone calls, DVDs, touch screen kiosks). While these tools show great promise for helping health systems meet the growing demand for diabetes management and support, they have been shown to be most effective when they support human contact.[35]

Below, we expand on specific elements of the above operational definition. They are presented in the order in which they appear in the definition.

Trained Individual

This can be an individual who has either received formal education and training in diabetes management and/or education, or has received some form of training to provide the specific program offered. There is no requirement to have a certain degree level or certification. This may include what is described as a lay health worker, "expert patient," "promotores" (Spanish term), or peer, as long as training is provided.

Repeated Interaction

There must be more than one interactive session—via face-to-face or indirect means—with the personnel providing the program.

Duration of ≥4 Weeks

The minimum duration of 4 weeks does not include post-intervention follow-up assessments for outcome ascertainment.

Diabetes Self-management Education

A program will be considered DSME if the authors state that it meets the standards for DSME in the country in which the program is delivered (i.e., the program does not just cover a set of recommended topics of education). We also will include programs aiming to change patient (not provider) behaviors that are reported to: 1) include individualized assessment of needs/behaviors (performed by the provider and/or patient); 2) provide education on multiple self-care/management behaviors using interactive approaches (these may be combined with didactic and/or collaborative approaches); and 3) incorporate some form of behavior change strategy

(e.g., goal setting) whereby patients are trained to make informed decisions to self-manage their disease.
Not all topics must be provided to all patients and not all patients will receive the same duration/number of sessions, that is, there may be some tailoring of topics and delivery based on the needs assessment.

Structured Dietary Intervention

Dietary interventions may related to weight loss (e.g., caloric restriction), glycemic control (e.g., carbohydrate counting, controlling glycemic index of foods), and/or reducing risk for complications or comorbidities (e.g., reduced saturated and trans fats, increased fiber). The intervention must include interactive education/training methods (i.e., must be more than the provision of information or advice) on more than one occasion. The diet composition may either be personalized to the patient or follow a predetermined composition (e.g., low calorie diet with <30 percent fat).

Structured Physical Activity Intervention

Physical activity interventions must include either 1) personalized programs based on patient assessment and/or a patient's goals to train and facilitate behavior change, or 2) a structured intervention with a pre-determined program of activity (i.e., type, frequency, intensity and duration). The intervention must include interactive education/training methods (i.e., must be more than the provision of information or advice) on more than one occasion.

Activities that do not provide considerable energy expenditure (moderate intensity or more; goal to reach >40 percent aerobic capacity) or strength training potential will not be included (e.g., yoga, tai chi, stretching) but may be considered relaxation or stress reduction interventions.

Blood Glucose Regulation

This includes self-regulation of medication, diet, physical activity and so forth, based on results of blood glucose monitoring or awareness training. The intervention must consist of more than didactic teaching of blood glucose monitoring, teaching how to use pumps or other diabetes treatment technology, or teaching how to inject insulin. It may, for example, include practicing skills and problem solving on how to use the test results or to increase self-awareness to improve control through behaviors.

Relaxation or Stress Reduction

This includes interactive training or teaching related to meditation, yoga and other forms of non-aerobic or resistance training, or specific relaxation exercises or techniques (e.g., biofeedback). It may or may not include supervised practice.

Behavior Change Strategies

These include strategies to change behaviors but are not solely focused on emotional well-being. Strategies include, but are not limited to, motivational interviewing, coping skills training, cognitive behavioral therapy or techniques, problem-solving, goal setting, behavioral contracting, support groups, use of incentives or rewards, environmental change or barrier reduction, parent simulation, family therapy (related to problems with disease management behaviors), or anchored instruction. They must be directed at more than the single behavior in the structured diet or physical activity interventions. For example, a diet intervention with goal

setting and motivational interviewing that are only related to diet will not be considered two separate interventions. The strategies do not have to be based on theory but, where they are, this will be noted during data extraction. They do not include interventions limited to screening or therapeutic counseling for mental health diagnoses or emotional issues, although general psychosocial aspects and adaptation to disease will be included.

Medication Adherence

Any ongoing or intermittent intervention (i.e., not one-time provision of advice or information) that is intended to increase adherence to medication for hyperglycemia or risk factor reduction (e.g., lipid-lowering medications). This can be technology-based (e.g., text reminders via cell phone).

Self-monitoring for Diabetic Complications

Any ongoing or intermittent intervention (i.e., not one-time provision of advice or information) that is intended to increase self-monitoring or screening for micro- or macrovascular complications (e.g., training on home foot care, reminders to attend screening appointments). This can be technology-based (e.g., text reminders via cell phone).

Note on Classification During Data Synthesis

Because there were very few studies evaluating programs with dietary and another (non-physical activity) component, or physical activity and another (non-dietary) component, we collapsed all programs that were not DSME into a “lifestyle” category which largely contained programs focusing on diet and physical activity.

Community Health Setting

A clinical practice setting with the primary purpose of providing health care to community-dwelling individuals (i.e., not hospital inpatients). Community health settings include ambulatory care clinics, outpatient clinics, primary care clinics, family physician clinics, and federally qualified health centers (i.e., Community Health Centers and Rural Health Centers). Programs that will be excluded are those delivered in inpatient settings and those offered in the community but without a link to a health clinic or center.

Comparators

Usual (or Routine/Standard) Care

These consist of usual medical management of study participants, whether this was provided by the study investigators or other health care professionals; because medical care is so diverse, these groups could receive a minimally intense intervention such as provision of pamphlets or one individual session with an educator. as they are reported in the studies and we will extract data on them as reported. Interventions which are very minimal (e.g. delivery of pamphlets) will be included in this category.

Active Comparator

Controls that were beyond usual care but not meeting our operational definition of a behavioral program were considered active controls (e.g., stand-alone dietary intervention, basic education program of short duration or not including behavioral approaches).

Other Intervention

Anything that meets our definition of behavioral health program will be categorized as an intervention.

Appendix B. Literature Search Strategies

Table B1. MEDLINE
Table B2. CENTRAL
Table B3. CINAHL
Table B4. Ovid EMBASE
Table B5. Ovid PsycINFO
Table B6. PubMed
Table B7. Scopus
Table B8. AADE Proceedings
Table B9. ADA Proceedings
Table B10. CDA Proceedings
Table B11. EASD Proceedings
Table B12. IDF Proceedings
Table B13. SBM Proceedings
Table B14. ISBNPA Proceedings
Table B15. ClinicalTrials.gov
Table B16. WHO ICTRP

Table B1. MEDLINE

Database: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) 1946 to Present
Search Title: Behavioral Health Programs for Diabetes_1
Search Date: 28 May 2014
Results: 15064

1. exp Diabetes Mellitus/
2. exp hypoglycemia/
3. diabet*.mp.
4. (noninsulin depend* or non insulin depend* or insulin depend*).mp.
5. (T1DM or T2DM or IDDM or NIDDM).mp.
6. or/1-5
7. exp Diabetes Insipidus/
8. (diabet* adj3 (insipidus not mellitus)).mp.
9. or/7-8
10. 6 not 9 (473318)
11. Behavior Therapy/
12. Blood Glucose Self-Monitoring/
13. Cognitive Therapy/
14. Community Health Centers/
15. Disease Management/
16. exp Exercise/ and (counsel* or intervention* or program* or train*).mp.
17. exp Exercise Therapy/
18. exp Directive Counseling/
19. Health Behavior/ and (counsel* or intervention* or program* or train*).mp.
20. Health Education/
21. Health Promotion/
22. exp Nutrition Therapy/
23. "Outcome Assessment (Health Care)"/
24. exp Patient Care Team/
25. exp Patient Compliance/
26. Patient Education as Topic/
27. Program Evaluation/
28. Relaxation Therapy/
29. Self Administration/
30. Self Medication/
31. Self Care/
32. Weight Loss/
33. (behavio?r adj2 therap*).mp.
34. (blood glucose adj2 monitor*).mp.
35. (cognitive adj2 therap*).mp.
36. (communit* adj2 (center* or centre*)).mp.
37. disease management.mp.
38. directive counsel*.mp.

39. ((behavio* or exercis* or diet* or fitness or life style* or lifestyle* or nutrition or physical activit* or problem solving or relax*) adj3 (counsel* or intervention* or program* or therap* or train* or treat*)).mp.
40. motivation* interview*.mp.
41. (self manag* or selfmanag* or self car* or selfcar*).mp.
42. or/11-41 (655126)
43. 10 and 42 (43958)
44. randomized controlled trial.pt.
45. controlled clinical trial.pt.
46. randomi?ed.ab.
47. placebo.ab.
48. drug therapy.fs.
49. randomly.ab.
50. trial.ab.
51. groups.ab.
52. or/44-51
53. exp animals/ not humans.sh.
54. 52 not 53
55. 43 and 54 (16442)
56. cohort studies/
57. follow-up studies/
58. longitudinal studies/
59. prospective studies/
60. cohort analy*.tw.
61. (cohort adj (study or studies)).tw.
62. (control* adj5 (before adj2 after)).tw.
63. (control* adj5 (pre* adj2 post*)).tw.
64. (follow up adj (study or studies)).tw.
65. longitudinal.tw.
66. (observational adj (study or studies)).tw.
67. prospective.tw.
68. or/56-67 (1252385)
69. exp animals/ not humans.sh.
70. 68 not 69
71. 43 and 70 (5831)
72. 55 or 71 (19002)
73. limit 72 to yr="1993-2014" (16423)
74. limit 73 to english language (15064)

Table B2. CENTRAL

Database: CENTRAL via Cochrane Library
Search Title: Behavioral Health Programs for Diabetes
Date Searched: 30 May 2014
Results: 8010

1. MeSH descriptor: [Diabetes Mellitus] explode all trees
2. MeSH descriptor: [Hypoglycemia] explode all trees

3. diabet*:ti,ab,kw
4. ("noninsulin depend*" or "non insulin depend*" or "insulin depend*"):ti,ab,kw
5. (T1DM or T2DM or IDDM or NIDDM):ti,ab,kw
6. #1 or #2 or #3 or #4 or #5
7. exp Diabetes Insipidus/
8. (diabet* near/3 (insipidus not mellitus)):ti,ab,kw
9. #7 or #8
10. #6 not #9 (31905)
11. MeSH descriptor: [Behavior Therapy] this term only
12. MeSH descriptor: [Blood Glucose Self-Monitoring] this term only
13. MeSH descriptor: [Cognitive Therapy] this term only
14. MeSH descriptor: [Community Health Centers] this term only /
15. MeSH descriptor: [Disease Management] this term only
16. MeSH descriptor: [Exercise] explode all trees
17. (counsel* or intervention* or program* or train*):ti,ab,kw
18. #16 and #17
19. MeSH descriptor: [Exercise Therapy] explode all trees
20. MeSH descriptor: [Directive Counseling] explode all trees
21. MeSH descriptor: [Health Behavior] this term only
22. (counsel* or intervention* or program* or train*):ti,ab,kw
23. #21 and #22
24. MeSH descriptor: [Health Education] this term only
25. MeSH descriptor: [Health Promotion] this term only
26. MeSH descriptor: [Nutrition Therapy] explode all trees
27. MeSH descriptor: [Outcome Assessment (Health Care)] this term only
28. MeSH descriptor: [Patient Care Team] explode all trees
29. MeSH descriptor: [Patient Compliance] explode all trees
30. MeSH descriptor: [Patient Education as Topic] this term only
31. MeSH descriptor: [Program Evaluation] this term only
32. MeSH descriptor: [Relaxation Therapy] this term only
33. MeSH descriptor: [Self Administration] this term only
34. MeSH descriptor: [Self Medication] this term only
35. MeSH descriptor: [Self Care] this term only
36. MeSH descriptor: [Weight Loss] this term only
37. (behavio*r near/2 therap*):ti,ab,kw
38. (“blood glucose” near/2 monitor*):ti,ab,kw
39. (cognitive near/2 therap*):ti,ab,kw
40. (communit* near/2 (center* or centre*)):ti,ab,kw
41. “disease management”:ti,ab,kw
42. “directive counsel*”:ti,ab,kw
43. ((behavio* or exercis* or diet* or fitness or “life style*” or lifestyle* or nutrition or “physical activit*” or “problem solving” or relax*) near/3 (counsel* or intervention* or program* or therap* or train* or treat*)):ti,ab,kw
44. “motivation* interview*”:ti,ab,kw
45. (“self manag*” or selfmanag* or “self car*” or selfcar*):ti,ab,kw

46. #11 or #12 or #13 or 14 or #15 or #18 or #19 or #20 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 (175091)
47. #10 and #46 (9944)
limit: Publication Date from 1993 to 2014, in Trials (8010)

Table B3. CINAHL

Database: CINAHL
Search Title: Behavioral Health Programs for Diabetes
Date Searched: 30 May 2014
Results: 8881

1. (MH "Diabetes Mellitus+")
2. (MH "Hypoglycemia+")
3. diabet*
4. "noninsulin depend*" or "non insulin depend*" or "insulin depend*"
5. T1DM or T2DM or IDDM or NIDDM
6. S1 OR S2 OR S3 OR S4 OR S5
7. (MH "Diabetes Insipidus+")
8. diabet* N3 (insipidus not mellitus)
9. S7 OR S8
10. S6 not S9 (120,132)
11. (MH "Behavior Therapy")
12. (MH "Blood Glucose Self-Monitoring")
13. (MH "Cognitive Therapy")
14. (MH "Community Health Centers")
15. (MH "Diabetes Education")
16. (MH "Diet Therapy+")
17. (MH "Disease Management")
18. (MH "Exercise+") AND (counsel* or intervention* or program* or train*)
19. (MH "Health Behavior") AND (counsel* or intervention* or program* or train*)
20. (MH "Health Education")
21. (MH "Health Promotion")
22. (MH "Motivational Interviewing")
23. (MH "Multidisciplinary Care Team+")
24. (MH "Outcome Assessment")
25. (MH "Patient Compliance+")
26. (MH "Patient Education")
27. (MH "Program Evaluation")
28. (MH "Self Administration")
29. (MH "Self Medication")
30. (MH "Self Care")
31. (MH "Therapeutic Exercise+")
32. (MH "Weight Loss")
33. behavio#r N2 therap*
35. “blood glucose” N2 monitor*
36. cognitive N2 therap*

36. communit* N2 (center* or centre*)
37. “disease management”
38. “directive counsel*”
39. (behavio* or exercis* or diet* or fitness or “life style*” or lifestyle* or nutrition or “physical activit*” or “problem solving” or relax*) N3 (counsel* or intervention* or program* or therap* or train* or treat*)
40. “motivation* interview*”
41. “self manag*” or selfmanag* or “self car*” or selfcar*
42. S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 (334531)
43. S10 AND S42 (27139)
44. (MH "Clinical Trials+")
45. PT Clinical trial
46. TX clinic* n1 trial*
47. TX ((singl* n1 blind*) or (singl* n1 mask*)) or TX ((doubl* n1 blind*) or (doubl* n1 mask*)) or TX ((tripl* n1 blind*) or (tripl* n1 mask*)) or TX ((trebl* n1 blind*) or (trebl* n1 mask*))
48. TX randomi* control* trial*
49. (MH "Random Assignment")
50. TX random* allocat*
51. TX placebo*
52. (MH "Placebos")
53. (MH "Quantitative Studies")
54. TX allocat* random*
53. (MH "Quantitative Studies")
54. TX allocat* random*
55. S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54
56. (MH "Animals+") NOT (MH "Human")
57. S55 NOT S56
58. S43 AND S57 (7921)
59. (MH “Concurrent Prospective Studies”)
60. (MH “Nonexperimental Studies”)
61. (MH “Prospective Studies”)
62. “cohort analy*”
63. cohort N1 (study or studies)
64. control* N5 (before N2 after)
65. control* N5 (pre* N2 post*)
66. “follow up” N1 (study or studies)
67. longitudinal
68. observational N1 (study or studies)
69. prospective
70. S59 OR S60 OR S61 OR S62 OR S63 OR S64 OR S65 OR S66 OR S67 OR S68 OR S69
71. (MH "Animals+") NOT (MH "Human")
72. S70 not S71

73. S43 AND S72 (2627)
74. S58 OR S73 (9468)
75. S74 Limiters – English Language; Publication Date: 19930101-20141231 (8881)

Table B4. Ovid EMBASE

Database: Ovid Embase 1988 to 2014 Week 21
Search Title: Behavioral Health Programs for Diabetes_2
Date Searched: May 29, 2014
Results: 24629

1. exp diabetes mellitus/
2. exp hypoglycemia/
3. diabet*.mp.
4. (noninsulin depend* or non insulin depend* or insulin depend*).mp.
5. (T1DM or T2DM or IDDM or NIDDM).mp.
6. or/1-5
7. exp diabetes insipidus/
8. (diabet* adj3 (insipidus not mellitus)).mp.
9. or/7-8
10. 6 not 9 (613880)
11. behavior therapy/
12. blood glucose monitoring/
13. cognitive therapy/
14. diabetes education/
15. exp diet therapy/
16. directive counseling/
17. disease management/
18. drug self administration/
19. exp Exercise/ and (counsel* or intervention* or program* or train*).mp.
20. Health Behavior/ and (counsel* or intervention* or program* or train*).mp.
21. health center/
22. health education/
23. health promotion/
24. exp kinesiotherapy/
25. nutrition education/
26. outcome assessment/
27. patient care/
28. exp patient compliance/
29. patient education/
30. exp program evaluation/
31. rapid response team/
32. relaxation training/
33. self care/
34. weight reduction/
35. (behavio?r adj2 therap*).mp.
36. (blood glucose adj2 monitor*).mp.
37. (cognitive adj2 therap*).mp.

38. (communit* adj2 (center* or centre*)).mp.
39. disease management.mp.
40. directive counsel*.mp.
41. ((behavio* or exercis* or diet* or fitness or life style* or lifestyle* or nutrition or physical activit* or problem solving or relax*) adj3 (counsel* or intervention* or program* or therap* or train* or treat*)).mp.
42. motivation* interview*.mp.
43. (self manag* or selfmanag* or self car* or selfcar*).mp.
44. or/11-43 (1217935)
45. 10 and 44 (121429)
46. random*.mp.
47. animals/ not (animals/ and humans/)
48. 46 not 47
49. 45 and 48 (18450)
50. cohort analysis/
51. longitudinal study/
52. prospective study/
53. (cohort adj (study or studies)).tw.
54. (control* adj5 (before adj2 after)).tw.
55. (control* adj5 (pre* adj2 post*)).tw.
56. (follow up adj (study or studies)).tw.
57. (prospective adj (study or studies)).tw.
58. or/50-57
59. animals/ not (animals/ and humans/)
60. 58 not 59
61. 45 and 60 (9212)
62. 49 or 61 (25875)
63. limit 62 to yr="1993-2014" (25632)
64. limit 63 to english language (24629)

Table B5. Ovid PsycINFO

Database: Ovid PsycINFO 1987 to May Week 4 2014
Search Title: Behavioral Health Programs for Diabetes_3
Date Searched: 29 May 2014
Results: 4008

1. exp Diabetes/
2. Hypoglycemia/
3. diabet*.mp.
4. (noninsulin depend* or non insulin depend* or insulin depend*).mp.
5. (T1DM or T2DM or IDDM or NIDDM).mp.
6. or/1-5
7. Diabetes Insipidus/
8. (diabet* adj3 (insipidus not mellitus)).mp.
9. or/7-8
10. 6 not 9 (18569)
11. Behavior Therapy/

12. Client Centered Therapy/
13. Client Education/
14. Cognitive Therapy/
15. exp Community Services/
16. exp Compliance/
17. exp Counseling/
18. Disease Management/
19. Drug Self Administration/
20. exp Exercise/ and (counsel* or intervention* or program* or train*).mp.
21. Health Behavior/ and (counsel* or intervention* or program* or train*).mp.
22. exp Health Care Delivery/
23. Health Care Services/
24. Health Education/
25. Health Promotion/
26. Movement Therapy/
27. Motivational Interviewing/
28. Physical Activity/
29. exp Program Evaluation/
30. Recreation Therapy/
31. exp Relaxation Therapy/
32. Self Monitoring/
33. Self Care Skills/
34. Weight Control/
35. Weight Gain/
36. Weight Loss/
37. (behavio?r adj2 therap*).mp.
38. (blood glucose adj2 monitor*).mp.
39. (cognitive adj2 therap*).mp.
40. (communit* adj2 (center* or centre*)).mp.
41. disease management.mp.
42. directive counsel*.mp.
43. ((behavio* or exercis* or diet* or fitness or life style* or lifestyle* or nutrition or physical activit* or problem solving or relax*) adj3 (counsel* or intervention* or program* or therap* or train* or treat*)).mp.
44. motivation* interview*.mp.
45. (self manag* or selfmanag* or self car* or selfcar*).mp.
46. or/11-45 (258474)
47. 10 and 46 (5964)
48. control*.tw.
49. random*.tw.
50. exp treatment/
51. or/ 48-50
52. exp animals/ not humans.sh.
53. 51 not 52
54. 47 and 53 (4248)
55. cohort analy*.tw.

56. (cohort adj (study or studies)).tw.
57. (control* adj5 (before adj2 after)).tw.
58. (control* adj5 (pre* adj2 post*)).tw.
59. (follow up adj (study or studies)).tw.
60. longitudinal.tw.
61. (observational adj (study or studies)).tw.
62. prospective.tw.
63. or/55-62
64. exp animals/ not humans.sh.
65. 63 not 64
66. 47 and 65 (502)
67. 54 or 66 (4367)
68. limit 67 to yr="1993-2014" (4103)
69. limit 68 to english language (4010)
70. remove duplicates from 69 (4008)

Table B6. PubMed

Database: PubMed
Search Title:
Date Searched: 30 May 2014
Results: 670

1. "Diabetes Mellitus"[Mesh]
2. "Hypoglycemia"[Mesh]
3. diabet*[tiab]
4. "noninsulin dependent"[tiab] OR "non insulin dependent"[tiab] OR "insulin dependent"[tiab]
5. T1DM[tiab] OR T2DM[tiab] OR IDDM[tiab] OR NIDDM[tiab]
6. #1 OR #2 OR #3 OR #4 OR #5
7. "Diabetes Insipidus"[Mesh]
8. diabet*[tiab] AND (insipidus[tiab] NOT mellitus[tiab])
9. #7 OR #8
10. #6 NOT #9 (472248)
11. "Behavior Therapy"[Mesh:NoExp]
12. "Blood Glucose Self-Monitoring"[Mesh]
13. "Cognitive Therapy"[Mesh:NoExp]
14. "Community Health Centers"[Mesh:NoExp]
15. "Disease Management"[Mesh:NoExp]
16. "Exercise"[Mesh] AND (counsel* or intervention* or program* or train*)
17. "Exercise Therapy"[Mesh]
18. "Directive Counseling"[Mesh]
19. "Health Behavior"[Mesh] AND (counsel* or intervention* or program* or train*)
20. "Health Education"[Mesh:NoExp]
21. "Health Promotion"[Mesh:NoExp]
22. "Nutrition Therapy"[Mesh]
23. "Outcome Assessment (Health Care)"[Mesh:NoExp]
24. "Patient Care Team"[Mesh]
25. "Patient Compliance"[Mesh]

26. "Patient Education as Topic"[Mesh:NoExp]
27. "Program Evaluation"[Mesh:NoExp]
28. "Relaxation Therapy"[Mesh:NoExp]
29. "Self Administration"[Mesh]
30. "Self Medication"[Mesh] /
31. "Self Care"[Mesh:NoExp]
32. "Weight Loss"[Mesh:NoExp]
33. "behavior therapy"[tiab] OR "behaviour therapy"[tiab] OR "behavior therapies"[tiab] OR "behaviour therapies"[tiab] OR "behavioral therapy"[tiab] OR "behavioural therapy"[tiab] OR "behavioral therapies"[tiab] OR "behavioural therapies"[tiab]
34. "blood glucose monitoring"[tiab]
35. "cognitive therapy"[tiab] OR "cognitive therapies"[tiab]
36. "community centre"[tiab] OR "community centres"[tiab] OR "community center"[tiab] OR "community centers"[tiab]
37. "disease management"[All Fields]
38. "directive counseling"[All Fields]
39. ((behavio*[tiab] or exercis*[tiab] or diet[tiab] or fitness[tiab] or "life style"[tiab] or "life styles"[tiab] or lifestyle*[tiab] or nutrition[tiab] or "physical activity"[tiab] or "problem solving"[tiab] or relax*[tiab]) AND (counsel*[tiab] or intervention*[tiab] or program*[tiab] or therap*[tiab] or train*[tiab] or treat*[tiab]))
40. "motivational interviewing"[tiab] OR "motivational interview"[tiab] OR "motivational interviews"[tiab]
41. "self manage"[tiab] OR "self managed"[tiab] OR selfmanag*[tiab] or "self care"[tiab] or selfcar*[tiab]
42. #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 (965205)
43. #10 AND #42 (56413)
44. randomized controlled trial [pt]
45. controlled clinical trial [pt]
46. randomized [tiab]
47. placebo [tiab]
48. drug therapy [sh]
49. randomly [tiab]
50. trial [tiab]
51. groups [tiab]
52. #44 OR #45 OR #46 OR #47 OR #48 OR #49 OR #50 OR #51
53. animals [mh] NOT humans [mh]
54. #52 NOT #53
55. #43 AND #54 (20350)
56. "Cohort Studies"[Mesh:NoExp]
57. "Follow-Up Studies"[Mesh]
58. "Longitudinal Studies"[Mesh:NoExp]
59. "Prospective Studies"[Mesh]
60. "cohort analysis"[tiab] OR "cohort analyses"[tiab]
61. "cohort study"[tiab] OR "cohort studies"[tiab]

62. "controlled before and after"[tiab] OR "controlled before after"[tiab]
63. control*[tiab] AND pre[tiab] AND post[tiab] AND (study[tiab] OR studies[tiab])
64. "follow up study"[tiab] OR "follow up studies"[tiab]
65. longitudinal[tiab]
66. "observational study"[tiab] OR "observational studies"[tiab]
67. prospective[tiab]
68. #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62 OR #63 OR #64 OR #65 OR #66 OR #67
69. animals [mh] NOT humans [mh]
70. #68 NOT #69
71. #43 AND #70 (7284)
72. #55 OR #71 (23770)
73. #72 Filters activated: Publication date from 2014/01/01 to 2014/12/31 (685)
74. #73 Filters activated: English (670)

Single search string:
Search: (((((("Diabetes Mellitus"[Mesh]) OR ("Hypoglycemia"[Mesh]) OR (diabet*[tiab]) OR ("noninsulin dependent"[tiab] OR "non insulin dependent"[tiab] OR "insulin dependent"[tiab]) OR (T1DM[tiab] OR T2DM[tiab] OR IDDM[tiab] OR NIDDM[tiab])) NOT ((diabet*[tiab] AND (insipidus[tiab] NOT mellitus[tiab])) OR ("Diabetes Insipidus"[Mesh]))) AND (("self manage"[tiab] OR "self managed"[tiab] OR selfmanag*[tiab] OR "self care"[tiab] OR selfcar*[tiab]) OR ("motivational interviewing"[tiab] OR "motivational interview"[tiab] OR "motivational interviews"[tiab]) OR ((behavio*[tiab] OR exercis*[tiab] OR diet[tiab] OR fitness[tiab] OR "life style"[tiab] OR "life styles"[tiab] OR lifestyle*[tiab] OR nutrition[tiab] OR "physical activity"[tiab] OR "problem solving"[tiab] OR relax*[tiab]) AND (counsel*[tiab] OR intervention*[tiab] OR program*[tiab] OR therap*[tiab] OR train*[tiab] OR treat*[tiab])) OR ("directive counseling"[All Fields]) OR ("disease management"[All Fields]) OR ("community centre"[tiab] OR "community centres"[tiab] OR "community center"[tiab] OR "community centers"[tiab]) OR ("cognitive therapy"[tiab] OR "cognitive therapies"[tiab]) OR ("blood glucose monitoring"[tiab]) OR ("behavior therapy"[tiab] OR "behaviour therapy"[tiab] OR "behavior therapies"[tiab] OR "behaviour therapies"[tiab] OR "behavioral therapy"[tiab] OR "behavioural therapy"[tiab] OR "behavioral therapies"[tiab] OR "behavioural therapies"[tiab]) OR ("Weight Loss"[Mesh:noexp]) OR ("Self Care"[Mesh:noexp]) OR ("Self Medication"[Mesh]) OR ("Self Administration"[Mesh]) OR ("Relaxation Therapy"[Mesh:noexp]) OR ("Program Evaluation"[Mesh:noexp]) OR ("Patient Education as Topic"[Mesh:noexp]) OR ("Patient Compliance"[Mesh]) OR ("Patient Care Team"[Mesh]) OR ("Outcome Assessment (Health Care)"[Mesh:noexp]) OR ("Nutrition Therapy"[Mesh]) OR ("Health Promotion"[Mesh:noexp]) OR ("Health Education"[Mesh:noexp]) OR ("Health Behavior"[Mesh] AND (counsel* OR intervention* OR program* OR train*)) OR ("Directive Counseling"[Mesh]) OR ("Exercise Therapy"[Mesh]) OR ("Exercise"[Mesh] AND (counsel* OR intervention* OR program* OR train*)) OR ("Disease Management"[Mesh:noexp]) OR ("Community Health Centers"[Mesh:noexp]) OR ("Cognitive Therapy"[Mesh:noexp]) OR ("Blood Glucose Self-Monitoring"[Mesh]) OR ("Behavior Therapy"[Mesh:noexp]))) AND (((randomized controlled trial[pt]) OR (controlled clinical trial[pt]) OR (randomized[tiab]) OR (placebo[tiab]) OR (drug therapy[sh]) OR (randomly[tiab]) OR (trial[tiab]) OR (groups[tiab])) NOT (animals[mh] NOT humans[mh]))) OR (((((("Diabetes Mellitus"[Mesh]) OR ("Hypoglycemia"[Mesh]) OR

(diabet*[tiab]) OR ("noninsulin dependent"[tiab] OR "non insulin dependent"[tiab] OR "insulin dependent"[tiab]) OR (T1DM[tiab] OR T2DM[tiab] OR IDDM[tiab] OR NIDDM[tiab])) NOT ((diabet*[tiab] AND (insipidus[tiab] NOT mellitus[tiab])) OR ("Diabetes Insipidus"[Mesh]))) AND (("self manage"[tiab] OR "self managed"[tiab] OR selfmanag*[tiab] OR "self care"[tiab] OR selfcar*[tiab]) OR ("motivational interviewing"[tiab] OR "motivational interview"[tiab] OR "motivational interviews"[tiab]) OR ((behavio*[tiab] OR exercis*[tiab] OR diet[tiab] OR fitness[tiab] OR "life style"[tiab] OR "life styles"[tiab] OR lifestyle*[tiab] OR nutrition[tiab] OR "physical activity"[tiab] OR "problem solving"[tiab] OR relax*[tiab]) AND (counsel*[tiab] OR intervention*[tiab] OR program*[tiab] OR therap*[tiab] OR train*[tiab] OR treat*[tiab])) OR ("directive counseling"[All Fields]) OR ("disease management"[All Fields]) OR ("community centre"[tiab] OR "community centres"[tiab] OR "community center"[tiab] OR "community centers"[tiab]) OR ("cognitive therapy"[tiab] OR "cognitive therapies"[tiab]) OR ("blood glucose monitoring"[tiab]) OR ("behavior therapy"[tiab] OR "behaviour therapy"[tiab] OR "behavior therapies"[tiab] OR "behaviour therapies"[tiab] OR "behavioral therapy"[tiab] OR "behavioural therapy"[tiab] OR "behavioral therapies"[tiab] OR "behavioural therapies"[tiab]) OR ("Weight Loss"[Mesh:noexp]) OR ("Self Care"[Mesh:noexp]) OR ("Self Medication"[Mesh]) OR ("Self Administration"[Mesh]) OR ("Relaxation Therapy"[Mesh:noexp]) OR ("Program Evaluation"[Mesh:noexp]) OR ("Patient Education as Topic"[Mesh:noexp]) OR ("Patient Compliance"[Mesh]) OR ("Patient Care Team"[Mesh]) OR ("Outcome Assessment (Health Care)"[Mesh:noexp]) OR ("Nutrition Therapy"[Mesh]) OR ("Health Promotion"[Mesh:noexp]) OR ("Health Education"[Mesh:noexp]) OR ("Health Behavior"[Mesh] AND (counsel* OR intervention* OR program* OR train*)) OR ("Directive Counseling"[Mesh]) OR ("Exercise Therapy"[Mesh]) OR ("Exercise"[Mesh] AND (counsel* OR intervention* OR program* OR train*)) OR ("Disease Management"[Mesh:noexp]) OR ("Community Health Centers"[Mesh:noexp]) OR ("Cognitive Therapy"[Mesh:noexp]) OR ("Blood Glucose Self-Monitoring"[Mesh]) OR ("Behavior Therapy"[Mesh:noexp]))) AND ((("Cohort Studies"[Mesh:noexp]) OR ("Follow-Up Studies"[Mesh]) OR ("Longitudinal Studies"[Mesh:noexp]) OR ("Prospective Studies"[Mesh]) OR ("cohort analysis"[tiab] OR "cohort analyses"[tiab]) OR ("cohort study"[tiab] OR "cohort studies"[tiab]) OR ("controlled before and after"[tiab] OR "controlled before after"[tiab]) OR (control*[tiab] AND pre[tiab] AND post[tiab] AND (study[tiab] OR studies[tiab])) OR ("follow up study"[tiab] OR "follow up studies"[tiab]) OR (longitudinal[tiab]) OR ("observational study"[tiab] OR "observational studies"[tiab]) OR (prospective[tiab])) NOT (animals[mh] NOT humans[mh])))

Table B7. Scopus

Database: Scopus [NOTE: Database used for checking references of key papers]
Search Title:
Date Searched:
Results:

Table B8. AADE Proceedings

Conference Proceeding: AADE Proceedings
Search Title: N/A
Date Searched: 27 June 2014
Results: TBD

https://event.crowdcompass.com/aade14/custom-list/Schedule

URL provided by Michelle Crain, AADE Marketing and Communications Coordinator
mcrain@aadenet.org

Note: No availability to abstracts from 2011-2013 meetings.

Table B9. ADA Proceedings

Conference Proceeding: ADA Proceedings (via Embase)
Search Title: N/A
Date Searched: 26 June 2014
Results: 3 PDFs

1. american diabetes association.ti.
2. limit 1 to (yr=2011 –Current" and (conference abstract or conference paper or conference proceeding or "conference review")) (3)

Table B10. CDA Proceedings

Conference Proceeding: CDA Proceedings
Search Title: N/A
Date Searched: 27 June 2014
Results: 3 journal issues

Hand searched issues of the Canadian Journal of Diabetes on ScienceDirect:
http://www.sciencedirect.com/science/journal/14992671/

Table B11. EASD Proceedings

Conference Proceeding: EASD (European Association for the Study of Diabetes) Proceedings
Search Title: N/A
Date Searched: 27 June 20143
Results: 3 links

Meeting abstracts available through the EASD website:
http://www.easd.org/index.php?option=com_content&view=article&id=69&Itemid=509

Table B12. IDF Proceedings

Conference Proceeding: IDF Proceedings
Search Title: N/A
Date Searched: 27 June 2014
Results: 2 links (2012 conference not available)

Meeting abstracts available through the IDF website:
http://www.idf.org/final-programme

Table B13. SMB Proceedings

Conference Proceeding: SBM Proceedings
Search Title: N/A
Date Searched: 27 June 2014
Results: 4 links to program PDFs

Meeting abstracts/programs available through the SBM website:
http://www.sbm.org/meetings/past

Table B14. ISBNPA Proceedings

Conference Proceeding: ISBNPA (International Society for Behavioral, Nutrition and Physical Activity) Proceedings
Search Title: N/A
Date Searched: 27 June 2014
Results: 4 links to programs/abstracts

Meeting abstracts/programs available through the ISBNPA website:
https://secure.isbnpa.org/annual-meeting/index.cfm

Table B15. ClinicalTrials.gov

Trial Registry: ClinicalTrials.gov
Date Searched: 25 – 26 June, 2014
Results: 2070

1. "Diabetes Mellitus" [DISEASE] AND (life style OR lifestyle OR life styles OR lifestyles) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (291)
2. "Diabetes Mellitus" [DISEASE] AND (self management) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (197)
3. "Diabetes Mellitus" [DISEASE] AND (behavior OR behaviour OR behavioral OR behavioural) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (710)
4. "Diabetes Mellitus" [DISEASE] AND (education OR educational) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (403)
5. "Diabetes Mellitus" [DISEASE] AND (blood glucose regulation) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (14)
6. "Diabetes Mellitus" [DISEASE] AND (medication adherence) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (61)
7. "Diabetes Mellitus" [DISEASE] AND ((exercise OR physical activity) AND (diet OR dietary)) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (273)
8. "Diabetes Mellitus" [DISEASE] AND ((exercise OR physical activity) AND (relaxation OR biofeedback OR yoga OR meditation)) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (10)
9. "Diabetes Mellitus" [DISEASE] AND ((diet OR dietary) AND (relaxation OR biofeedback OR yoga OR meditation)) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (7)
10. "Diabetes Mellitus" [DISEASE] AND (family) [TREATMENT] AND ("01/01/2009" : "12/31/2014") [FIRST-RECEIVED-DATE] (104)

Table B16. WHO ICTRP

Trial Registry: WHO ICTRP
Date Searched: 26 June 2014
Results: 422

Advance search interface: http://apps.who.int/trialsearch/AdvSearch.aspx
> “Condition” field: diabetes
> “Intervention” field: lifestyle OR self management OR behavior OR education OR family
> “Recruitment status” field is: ALL
> Date of registration is between: 01/01/2009 and 31/12/2014 (422)

Appendix C. Very High Human Development Index Countries

These countries meet the category of Very-high Human Development Index status, as per the United Nations Development Program. (Human Development Report 2013 Team. Table 1. Human Development Index and its components. In: Human Development Report 2013. The Rise of the South: Human Progress in a Diverse World. United Nations Development Programme, 2013; pp 144-7. http://hdr.undp.org/en/content/human-development-report-2013. Accessed March 3, 2014.)

Andorra
Argentina
Australia
Austria
Barbados
Belgium
Brunei Darussalam
Canada
Chile
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hong Kong, China (SAR)
Hungary
Iceland
Ireland
Israel
Italy
Japan
Korea (Republic of)
Latvia
Liechtenstein
Lithuania
Luxembourg
Malta
Netherlands
New Zealand
Norway
Poland
Portugal
Qatar
Seychelles
Singapore
Slovakia
Slovenia
Spain
Sweden
Switzerland
United Arab Emirates
United Kingdom
United States

Appendix D: Studies Excluded After Full-Text Review

1. Aas AM, Bergstad I, Thorsby PM, et al. An intensified lifestyle intervention programme may be superior to insulin treatment in poorly controlled type 2 diabetic patients on oral hypoglycaemic agents: Results of a feasibility study. Diabet Med. 2005 Mar;22(3):316-22. PMID: 15717881. Exclude: Intervention.

2. Abolfotouh MA, Kamal MM, El-Bourgy MD, et al. Quality of life and glycemic control in adolescents with type 1 diabetes and the impact of an education intervention. Int J Gen Med. 2011;4:141-52. PMID: 21475630. Exclude: Setting/Country.

3. Adams KF, Sperl-Hillen JaM, Davis H, et al. Factors influencing patient completion of diabetes self-management education. Diabetes Spectrum. 2013;26(1):40-5. PMID: Not available. Exclude: Outcomes.

4. Adepoju OE, Bolin JN, Phillips CD, et al. Effects of diabetes self-management programs on time-to-hospitalization among patients with type 2 diabetes: A survival analysis model. Patient Educ Couns. 2014 Apr;95(1):111-7. PMID: 24468198. Exclude: Intervention.

5. Adkins JW, Storch EA, Lewin AB, et al. Home-based behavioral health intervention: Use of a telehealth model to address poor adherence to type-1 diabetes medical regimens. Telemed J E Health. 2006 Jun;12(3):370-2. PMID: 16796506. Exclude: Design.

6. Agema P, Sherifali D. Determining the impact of an intervention to increase problem-solving skills in diabetes self-management: The diabetes problem-solving passport pilot study. Can J Diabetes. 2012 August;36(4):199-203. PMID: Not available. Exclude: Intervention.

7. Al Mazroui NR, Kamal MM, Ghabash NM, et al. Influence of pharmaceutical care on health outcomes in patients with type 2 diabetes mellitus. Br J Clin Pharmacol. 2009 May;67(5):547-57. PMID: 19552750. Exclude: Intervention.

8. Ali M, Schifano F, Robinson P, et al. Impact of community pharmacy diabetes monitoring and education programme on diabetes management: A randomized controlled study. Diabet Med. 2012 Sep;29(9):e326-33. PMID: 22672148. Exclude: Intervention.

9. Al-Jiffri O, Al-Sharif FM, Abd El-Kader SM, et al. Weight reduction improves markers of hepatic function and insulin resistance in type-2 diabetic patients with non-alcoholic fatty liver. Afr Health Sci. 2013 Sep;13(3):667-72. PMID: 24250305. Exclude: Setting/Country.

10. Allen N, Whittemore R, Melkus G. A continuous glucose monitoring and problem-solving intervention to change physical activity behavior in women with type 2 diabetes: A pilot study. Diabetes Technol Ther. 2011 Nov;13(11):1091-9. PMID: 21919735. Exclude: Intervention.

11. Allen NA, Fain JA, Braun B, et al. Continuous glucose monitoring counseling improves physical activity behaviors of individuals with type 2 diabetes: A randomized clinical trial. Diabetes Res Clin Pract. 2008 Jun;80(3):371-9. PMID: 18304674. Exclude: Duration.

12. Ambrosino JM, Fennie K, Whittemore R, et al. Short-term effects of coping skills training in school-age children with type 1 diabetes. Pediatr Diabetes. 2008 Jun;9(3 Pt 2):74-82. PMID: 18540868. Exclude: Intervention.

13. Amoako E, Skelly AH. Managing uncertainty in diabetes: An intervention for older African American women. Ethn Dis. 2007;17(3):515-21. PMID: 17985507. Exclude: Outcomes.

14. Anderson BJ, Brackett J, Ho J, et al. An intervention to promote family teamwork in diabetes management tasks: Relationships among parental involvement, adherence to blood glucose monitoring, and glycemic control in young adolescents with type 1 diabetes. Drotar, Dennis [Ed]. 2000. PMID: Not available. Exclude: Publication type.

15. Anonymous. 'Behavior change' is centerpiece of new dm approach for diabetics. Disease Management Advisor. 2001 Aug;7(8):118-21, 3. PMID: 11530657. Exclude: Publication type.

16. Anonymous. Culturally appropriate lifestyle interventions promote weight loss in rural dwelling people with type 2 diabetes. Evidence-Based Healthcare and Public Health. 2005 June;9(3):231-2. PMID: Not available. Exclude: Publication type.

17. Armstrong MJ, Campbell TS, Lewin AM, et al. Motivational interviewing-based exercise counselling promotes maintenance of physical activity in people with type 2 diabetes. Can J Diabetes. 2013 October;37:S3. PMID: 71210438. Exclude: Publication type.

18. Arseneau DL, Mason AC, Wood OB, et al. A comparison of learning activity packages and classroom instruction for diet management of patients with non-insulin-dependent diabetes mellitus. Diabetes Educ. 1994 Nov-Dec;20(6):509-14. PMID: 7851264. Exclude: Intervention.

19. Ash S, Reeves MM, Yeo S, et al. Effect of intensive dietetic interventions on weight and glycaemic control in overweight men with type ii diabetes: A randomised trial. Int J Obes Relat Metab Disord. 2003 Jul;27(7):797-802. PMID: 12821964. Exclude: Intervention.

20. Audet CM. A comparison of quality of life in traditional face-to-face and internet-based diabetes social support group participants. Dissertation Abstracts International: Section B: The Sciences and Engineering. 2014;74(8-B E). PMID: Not available. Exclude: Intervention.

21. Avdal E, Kizilci S, Demirel N. The effects of web-based diabetes education on diabetes care results: A randomized control study. Computers, informatics, nursing. [serial on the Internet]. 2011; 29(2): http://onlinelibrary.wiley.com/o/cochrane/clcentral/articles/121/CN-00787121/frame.html. Last accessed January 06, 2015. Exclude: Setting/Country.

22. Balamurugan A, Hall-Barrow J, Blevins MA, et al. A pilot study of diabetes education via telemedicine in a rural underserved community--opportunities and challenges: A continuous quality improvement process. Diabetes Educ. 2009 Jan-Feb;35(1):147-54. PMID: 19244570. Exclude: Intervention.

23. Balducci S, Zanuso S, Nicolucci A, et al. Effect of an intensive exercise intervention strategy on modifiable cardiovascular risk factors in subjects with type 2 diabetes mellitus: A randomized controlled trial: The italian diabetes and exercise study (IDES). Arch Intern Med. 2010 Nov 8;170(20):1794-803. PMID: 21059972. Exclude: Intervention.

24. Baradaran HR, Knill-Jones RP, Wallia S, et al. A controlled trial of the effectiveness of a diabetes education programme in a multi-ethnic community in glasgow [isrctn28317455]. BMC Public Health. 2006;6:134. PMID: 16709243. Exclude: Outcomes.

25. Barrera M, Jr., Glasgow RE, Mckay HG, et al. Do internet-based support interventions change perceptions of social support?: An experimental trial of approaches for supporting diabetes self-management. Am J Community Psychol. 2002 Oct;30(5):637-54. PMID: 12188054. Exclude: Outcomes.

26. Barrera M, Strycker LA, Mackinnon DP, et al. Social-ecological resources as mediators of two-year diet and physical activity outcomes in type 2 diabetes patients. Health Psychol. 2008 Mar;27(2 Suppl):S118-25. PMID: 18377153. Exclude: Outcomes.

27. Barrera M, Jr., Toobert DJ, Angell KL, et al. Social support and social-ecological resources as mediators of lifestyle intervention effects for type 2 diabetes. J Health Psychol. 2006 May;11(3):483-95. PMID: 16774900. Exclude: Outcomes.

28. Basch CE, Walker EA, Howard CJ, et al. The effect of health education on the rate of ophthalmic examinations among African Americans with diabetes mellitus. Am J Public Health. 1999 Dec;89(12):1878-82. PMID: 10589324. Exclude: Intervention.

29. Bastelaar K, Cuijpers P, Pouwer F, et al. Development and reach of a web-based cognitive behavioural therapy programme to reduce symptoms of depression and diabetes-specific distress [isrctn24874457]. Patient Education and Counseling. [serial on the Internet]. 2011; (1): http://onlinelibrary.wiley.com/o/cochrane/clcentral/articles/673/CN-00850673/frame.html. Last accessed January 06, 2015. Exclude: Intervention.

30. Batik O, Phelan EA, Walwick JA, et al. Translating a community-based motivational support program to increase physical activity among older adults with diabetes at community clinics: A pilot study of physical activity for a lifetime of success (PALS). Prev Chronic Dis. 2008 Jan;5(1):A18. PMID: 18082007. Exclude: Intervention.

31. Bellary S, O'hare JP, Raymond NT, et al. Enhanced diabetes care to patients of South Asian ethnic origin (the United Kingdom Asian diabetes study): A cluster randomised controlled trial. Lancet. 2008 May 24;371(9626):1769-76. PMID: 18502301. Exclude: Intervention.

32. Berger G, Brunmayr F, Muehlehner M, et al. Gender differences in the effect of motivational interviewing and cognitive behavioural therapy in Austrian adolescents with type 1 diabetes. Diabetologia. 2013 September;56:S452. PMID: 71439545. Exclude: Publication type.

33. Berger M, Imershein SG, Jackson RA. Wait-list control study of a diabetes (dm) education program. Diabetes. 2013 July;62:A621. PMID: 71288820. Exclude: Publication type.

34. Beverly EA, Fitzgerald S, Sitnikov L, et al. Do older adults aged 60-75 years benefit from diabetes behavioral interventions? Diabetes Care. 2013 Jun;36(6):1501-6. PMID: 23315603. Exclude: Outcomes.

35. Blackberry ID, Furler JS, Best JD, et al. Effectiveness of general practice based, practice nurse led telephone coaching on glycaemic control of type 2 diabetes: The patient engagement and coaching for health (PEACH) pragmatic cluster randomised controlled trial. BMJ (Online). 2013 28 Sep;347(7926). PMID: 24048296. Exclude: Intervention.

36. Boehm S, Schlenk EA, Raleigh E, et al. Behavioral analysis and behavioral strategies to improve self-management of type ii diabetes. Clin Nurs Res. 1993 Aug;2(3):327-44. PMID: 8401245. Exclude: Intervention.

37. Bradshaw BG. The efficacy of a resiliency training program in adults with type 2 diabetes mellitus: University of Utah; 2006. Exclude: Publication type.

38. Braun AK, Kubiak T, Kuntsche J, et al. Sgs: A structured treatment and teaching programme for older patients with diabetes mellitus--a prospective randomised controlled multi-centre trial. Age Ageing. 2009 Jul;38(4):390-6. PMID: 19454403. Exclude: Population.

39. Brown SA, Harrist RB, Villagomez ET, et al. Gender and treatment differences in knowledge, health beliefs, and metabolic control in Mexican Americans with type 2 diabetes. Diabetes Educ. 2000 May-Jun;26(3):425-38. PMID: 11151290. Exclude: Outcomes.

40. Byrne M, Newell J, Coffey N, et al. Predictors of quality of life gains among people with type 1 diabetes participating in the dose adjustment for normal eating (DAFNE) structured education programme. Diabetes Research and Clinical Practice. 2012 November;98(2):243-8. PMID: 23018180. Exclude: Design.

41. Cabrera-Pivaral CE, Gonzalez-Perez G, Vega-Lopez G, et al. Effects of behavior-modifying education in the metabolic profile of the type 2 diabetes mellitus patient. J Diabetes Complications. 2000 Nov-Dec;14(6):322-6. PMID: 11120456. Exclude: Setting/Country.

42. Cade JE, Kirk SF, Nelson P, et al. Can peer educators influence healthy eating in people with diabetes? Results of a randomized controlled trial. Diabet Med. 2009 Oct;26(10):1048-54. PMID: 19900238. Exclude: Intervention.

43. Cakan N, Ellis DA, Templin T, et al. The effects of weight status on treatment outcomes in a randomized clinical trial of multisystemic therapy for adolescents with type 1 diabetes and chronically poor metabolic control. Pediatr Diabetes. 2007 Aug;8(4):206-13. PMID: 17659062. Exclude: Outcomes.

44. Campbell EM, Redman S, Moffitt PS, et al. The relative effectiveness of educational and behavioral instruction programs for patients with NIDDM: A randomized trial. Diabetes Educ. 1996 Jul-Aug;22(4):379-86. PMID: 8846745. Exclude: Population.

45. Carter EL, Nunlee-Bland G, Callender C. A patient-centric, provider-assisted diabetes telehealth self-management intervention for urban minorities. Perspect. 2011;8:1b. PMID: 21307985. Exclude: Intervention.

46. Castaneda C, Layne JE, Munoz-Orians L, et al. A randomized controlled trial of resistance exercise training to improve glycemic control in older adults with type 2 diabetes. Diabetes Care. 2002 Dec;25(12):2335-41. PMID: 12453982. Exclude: Intervention.

47. Castillo A, Giachello A, Bates R, et al. Community-based diabetes education for Latinos: The diabetes empowerment education program. Diabetes Educ. 2010 Jul-Aug;36(4):586-94. PMID: 20538970. Exclude: Design.

48. Cavanaugh K, Wallston KA, Gebretsadik T, et al. Addressing literacy and numeracy to improve diabetes care: Two randomized controlled trials. Diabetes Care. 2009 Dec;32(12):2149-55. PMID: 19741187. Exclude: Intervention.

49. Chaney D, Coates V, Shevlin M. Running a complex educational intervention for adolescents with type 1 diabetes -- lessons learnt. Journal of Diabetes Nursing. 2010;14(10):370. PMID: Not available. Exclude: Publication type.

50. Channon SJ, Huws-Thomas MV, Rollnick S, et al. A multicenter randomized controlled trial of motivational interviewing in teenagers with diabetes. Diabetes Care. 2007 Jun;30(6):1390-5. PMID: 17351283. Exclude: Intervention.

51. Cheyette C. Weight no more: A randomised controlled trial for people with type 2 diabetes on insulin therapy. Practical Diabetes International. 2007 November/December;24(9):450-6. PMID: Not available. Exclude: Design.

52. Chlebowy DO, El-Mallakh P, Myers J, et al. Motivational interviewing to improve diabetes outcomes in African Americans adults with diabetes. West J Nurs Res. 2014 Apr 14. PMID: 24733233. Exclude: Intervention.

53. Choe HM, Mitrovich S, Dubay D, et al. Proactive case management of high-risk patients with type 2 diabetes mellitus by a clinical pharmacist: A randomized controlled trial. Am J Manag Care. 2005 Apr;11(4):253-60. PMID: 15839185. Exclude: Intervention.

54. Christian JG, Bessesen DH, Byers TE, et al. Clinic-based support to help overweight patients with type 2 diabetes increase physical activity and lose weight. Arch Intern Med. 2008 Jan 28;168(2):141-6. PMID: 18227359. Exclude: Intervention.

55. Cinar AB, Schou L. The role of self-efficacy in health coaching and health education for patients with type 2 diabetes. Int Dent J. 2014 Jun;64(3):155-63. PMID: 24571189. Exclude: Setting/Country.

56. Clancy DE, Huang P, Okonofua E, et al. Group visits: Promoting adherence to diabetes guidelines. J Gen Intern Med. 2007 May;22(5):620-4. PMID: 17443369. Exclude: Intervention.

57. Clifford RM, Batty KT, Davis TME, et al. A randomised controlled trial of a pharmaceutical care programme in high-risk diabetic patients in an outpatient clinic. Int J Pharm Pract. 2002;10(2):85-9. PMID: Not available. Exclude: Intervention.

58. Clobes TA. Patient compliance with type 2 diabetes using visual reminders and the transtheoretical model. Dissertation Abstracts International: Section B: The

Sciences and Engineering. 2013;73(11-B E). PMID: Not available. Exclude: Intervention.

59. Conget I, Jansa M, Vidal M, et al. Effects of an individual intensive educational control program for insulin-dependent diabetic subjects with poor metabolic control. Diabetes Res Clin Pract. 1995 Mar;27(3):189-92. PMID: 7555600. Exclude: Design.

60. Couper JJ, Taylor J, Fotheringham MJ, et al. Failure to maintain the benefits of home-based intervention in adolescents with poorly controlled type 1 diabetes. Diabetes Care. 1999 Dec;22(12):1933-7. PMID: 10587821. Exclude: Design.

61. Crasto W, Jarvis J, Khunti K, et al. Multifactorial intervention in individuals with type 2 diabetes and microalbuminuria: The microalbuminuria education and medication optimisation (MEMO) study. Diabetes Res Clin Pract. 2011 Sep;93(3):328-36. PMID: 21640424. Exclude: Intervention.

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Appendix E. Risk of Bias

Table E1. Risk of bias for studies on Type 1 Diabetes Mellitus

Table E2. Risk of bias for studies on Type 2 Diabetes Mellitus

Table E1. Risk of bias for studies on type 1 diabetes mellitus

Author, year	SG	AC	Blinding of PP		Blinding of OA		IOD		SOR	Other	Overall	
			Subjective	Objective	Subjective	Objective	Subjective	Objective			Subjective	Objective
Amsberg, 2009	M	M	H	M	H	L	H	H	L	L	H	H
Anderson, 1999	M	M	NA	M	NA	L	NA	L	L	L	NA	M
Boardway, 1993	M	M	H	M	H	L	H	H	L	L	H	H
Christie, 2014	L	L	H	M	H	L	H	M	L	L	H	M
Cook, 2002	M	M	H	M	H	L	H	H	L	L	H	H
Ellis, 2007	M	M	NA	M	NA	L	NA	M	L	L	NA	M
Ellis, 2012	L	M	M	M	M	L	M	M	M	L	M	M
Franklin, 2006	L	M	H	M	H	L	M	M	L	L	H	M
Freeman, 2013	M	M	M	M	M	L	H	H	L	L	H	H
Hermanns, 2013	L	L	H	M	H	L	L	L	L	L	H	M
Holmes, 2014	M	M	M	M	L	L	H	H	L	L	H	H
Husted, 2014	L	L	H	M	H	L	H	H	L	H	H	H
Ismail, 2008	L	H	H	M	H	L	H	M	M	H	H	H
Karlsen, 2004	M	M	H	M	H	L	H	H	L	L	H	H
Katz, 2014	M	M	H	M	H	L	L	L	L	L	H	M
Kichler, 2013	M	M	H	M	H	L	H	M	L	L	H	M
Laffel, 2003	M	M	H	M	H	L	L	L	L	L	H	M
Lehmkuhl, 2010	L	M	H	M	H	L	H	H	L	L	H	H
Mannucci, 2005	H	H	H	M	H	L	H	H	L	H	H	H
McNabb, 1994	M	M	H	M	H	L	H	H	L	L	H	H
Murphy, 2007	M	M	H	M	H	L	M	M	M	L	H	M
Murphy, 2012	L	L	H	M	H	L	H	L	M	L	H	M
Nansel, 2007	L	M	H	M	H	L	L	L	L	L	H	M
Nansel, 2012	L	M	H	M	H	L	L	L	L	L	H	M
Perry, 1997	M	M	H	M	H	L	H	H	L	L	H	H
Viklund, 2007	M	M	H	M	H	L	H	L	L	L	H	M
Weinger, 2011	L	M	M	M	M	L	L	L	L	L	M	M
Wysocki, 2007	M	M	H	M	H	L	M	M	L	L	H	M

Zoffmann, 2006	H	L	H	M	H	L	H	H	L	L	H	H

AC = allocation concealment; Blinding of OA = blinding of outcome assessors; Blinding of PP = blinding of participants and personnel; H = high risk of bias; IOD = incomplete outcome data; L = low risk of bias; M = medium or unclear risk of bias; NA = not applicable; Other = other sources of bias; Overall = overall risk of bias assessment; SG = sequence generation; SOR = selective outcome reporting

Table E2. Risk of bias for studies on type 2 diabetes mellitus

Author, year	SG	AC	Blinding of PP		Blinding of OA		IOD		SOR	Other	Overall	
			Subjective	Objective	Subjective	Objective	Subjective	Objective			Subjective	Objective
Adachi, 2013	M	M	H	M	H	L	M	M	L	L	H	M
Adolfsson, 2007	M	L	NA	M	NA	L	NA	H	L	H	NA	H
Agur-Collins, 1997	M	M	H	M	H	L	H	H	L	L	H	H
Amoako, 2008	H	H	H	M	H	L	M	M	L	L	H	H
Anderson, 1995	M	M	H	M	H	L	H	H	L	L	H	H
Anderson, 2005	M	M	H	M	H	L	L	L	L	L	H	M
Anderson, 2009	L	L	H	M	H	L	H	H	L	L	H	H
Anderson, 2010	M	M	NA	M	NA	L	NA	H	L	H	NA	H
Anderson-Loftin, 2005	L	M	H	M	H	L	H	H	L	L	H	H
Baksi, 2008	L	M	NA	M	NA	L	NA	H	L	L	NA	H
Barratt, 2008	L	M	NA	M	NA	L	NA	L	L	L	NA	M
Beverly, 2013	L	M	M	M	M	L	H	H	L	M	H	H
Bond, 2007	M	M	H	M	H	L	L	L	L	L	H	M
Bozzetto, 2014	L	M	M	M	M	L	H	H	L	L	H	H
Bradshaw, 2007	M	M	M	M	M	L	H	H	M	L	H	H
Brown, 2002	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Brown, 2005	M	M	M	M	M	L	L	L	L	L	M	M
Brown, 2011	M	M	NA	M	NA	L	NA	L	L	L	NA	M
Castejon, 2013	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Chan, 2012	L	M	H	M	H	L	H	H	L	L	H	H
Chan, 2014	L	L	M	M	M	L	L	L	L	L	M	M
Cheong, 2009	M	M	M	M	M	L	H	H	L	L	H	H
Clark, 2004	L	M	H	M	H	L	L	L	L	L	H	M
Cooper, 2008	M	M	NA	M	NA	L	NA	H	H	M	NA	H
Corkery, 1997	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Cramer, 2007	M	M	H	M	H	L	H	H	L	M	H	H

Dasgupta, 2006	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Davis, 2010	M	M	NA	M	NA	L	NA	M	L	L	NA	M
Deakin, 2006	M	M	H	M	H	L	L	L	L	L	H	M
D-Eramo Melkus, 2010	L	M	M	M	M	L	M	M	L	L	M	M
Dunstan, 1997	M	M	H	M	H	L	H	H	L	L	H	H
Dunstan, 2005	M	M	M	M	M	L	H	H	L	L	H	H
Eakin, 2014	L	M	H	M	H	L	M	M	L	L	H	M
Fisher, 2013	L	M	M	M	H	L	H	H	M	L	H	H
Foster, 2009	L	M	H	M	H	L	L	L	L	L	H	M
Foster, 2013	L	M	NA	M	NA	L	NA	L	L	L	NA	M
Frosch, 2011	M	M	H	M	H	L	H	H	L	L	H	H
Gagliardino, 2013a	M	M	M	M	M	L	L	L	L	L	M	M
Gagliardino, 2013b	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Giannopoulou, 2005	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Glasgow, 2006a	M	M	H	M	H	L	M	M	L	L	H	M
Glasgow, 2006b	L	M	H	M	H	L	H	H	L	L	H	H
Glasgow, 2012	L	M	H	M	H	L	M	M	L	L	H	M
Goudswaard, 2004	L	M	NA	M	NA	L	NA	H	L	L	NA	H
Hawkins, 2010	L	L	NA	M	NA	L	NA	H	L	L	NA	H
Hendricks, 2000	M	M	M	M	M	L	H	H	L	L	H	H
Hermanns, 2012	L	M	M	M	M	L	H	H	L	L	H	H
Hill-Briggs, 2011	M	M	NA	M	NA	L	NA	L	L	L	NA	M
Holtrop, 2002	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Huisman, 2009	M	M	H	M	H	L	H	H	L	L	H	H
Izquierdo, 2003	M	M	M	M	M	L	H	H	L	H	H	H
Johnson, 2009	L	M	M	M	M	L	M	M	L	L	M	M
Jones, 2003	M	M	NA	M	NA	L	NA	M	L	L	NA	M
Keyserling, 2002	L	M	M	M	H	L	H	H	L	H	H	H

Kim, 2006	M	M	NA	M	NA	L	NA	L	L	L	NA	M
Kim, 2009	L	M	H	M	H	L	L	L	L	L	H	M
Koo, 2010	M	M	NA	M	NA	L	NA	M	L	L	NA	M
Kulzer, 2007	M	M	H	M	H	L	M	M	L	L	H	M
Lee, 2011	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Lorig, 2008	M	M	H	M	H	L	H	H	L	L	H	H
Lorig, 2009	L	M	H	M	H	L	M	M	L	L	H	M
Lorig, 2010	L	M	H	M	H	L	M	M	L	L	H	M
Lujan, 2007	M	M	NA	M	NA	L	NA	L	L	L	NA	M
Lynch, 2014	M	M	M	M	M	L	H	H	L	H	H	H
Mandel, 2013	L	L	M	M	M	L	H	H	L	L	H	H
Mayer-Davis, 2004	M	M	NA	M	NA	L	NA	M	L	L	NA	M
McGowan, 2011	H	L	M	M	M	L	H	H	L	L	H	H
Miller, 2014	L	M	M	M	M	L	H	H	L	L	H	H
Moriyama, 2009	H	H	H	M	H	L	H	H	L	L	H	H
Muchmore, 1994	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Murrock, 2009	L	M	NA	M	NA	L	NA	H	L	L	NA	H
Nashita, 2013	M	M	H	M	H	L	H	H	L	L	H	H
Palmas, 2014	L	L	NA	M	NA	L	NA	M	L	L	NA	M
Philis-Tsimikas, 2011	L	H	NA	M	NA	L	NA	H	L	L	NA	H
Plotnikoff, 2011	L	M	M	M	M	L	M	M	L	L	M	M
Prezio, 2013	L	M	NA	M	NA	L	NA	M	L	L	NA	M
Reaney, 2013	L	M	H	M	H	L	L	M	L	L	H	M
Rickheim, 2002	H	H	H	M	H	L	H	H	L	H	H	H
Ridgeway, 1999	M	M	H	M	H	L	H	H	M	L	H	H
Rock, 2014	L	M	H	M	H	L	M	M	L	L	H	M
Rosal, 2005	M	M	H	M	H	L	L	L	L	L	H	M
Rosal, 2011	M	M	H	M	H	L	M	M	L	M	H	M
Rothschild, 2014	L	M	L	L	L	L	M	M	L	H	H	H

Ruggiero, 2010	M	M	H	M	H	L	H	H	L	L	H	H
Ruggiero, 2014	L	M	H	M	H	L	H	H	L	L	H	H
Sacco, 2009	H	M	H	M	H	L	H	H	L	L	H	H
Salinero-Fort, 2011	M	M	NA	M	NA	L	NA	L	L	L	NA	M
Samuel-Hodge, 2009	L	M	H	M	H	L	H	M	M	L	H	M
Sarkadi, 2004	L	L	H	M	H	L	M	M	L	L	H	M
Sevick, 2012	L	M	NA	M	NA	L	NA	H	L	L	NA	H
Shibayama, 2007	M	M	H	M	H	L	M	M	L	L	H	M
Sigurdardottir, 2009	L	L	H	M	H	L	L	L	L	L	H	M
Siminerio, 2013	M	M	M	M	M	L	M	M	L	L	M	M
Sinclair, 2013	L	M	H	M	H	L	H	H	L	L	H	H
Sixta, 2008	L	M	NA	M	NA	L	NA	H	L	L	NA	H
Skelly, 2005	L	M	H	M	H	L	H	H	L	L	H	H
Skelly, 2009	M	L	M	M	M	L	L	L	L	L	M	M
Smith, 1997	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Spencer, 2011	M	M	H	M	H	L	H	H	L	L	H	H
Sperl-Hillen, 2013	L	M	H	M	H	L	M	L	H	L	H	H
Steed, 2005	H	H	H	M	H	L	M	M	L	L	H	H
Sung, 2012	L	M	H	M	H	L	M	M	L	L	H	M
Tang, 2014	M	L	NA	L	NA	L	NA	H	M	L	NA	H
Thoolen, 2007	L	M	H	M	H	L	H	H	L	L	H	H
Toobert, 2003	M	M	H	M	H	L	H	H	L	L	H	H
Toobert, 2011	M	M	H	M	H	L	H	H	L	L	H	H
Trief, 2011	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Tucker, 2014	M	M	H	M	H	L	H	H	L	M	H	H
Utz, 2008	L	M	M	M	M	L	M	M	L	L	M	M
Vadstrup, 2011	L	M	M	M	M	L	M	M	L	L	M	M
Vazquez, 1998	M	M	H	M	H	L	M	M	L	L	H	M
Vincent, 2007	L	M	H	M	H	L	H	H	L	L	H	H

Walker, 2011	L	M	M	M	M	L	M	M	L	L	M	M
Weinger, 2011	L	M	M	M	M	L	M	M	L	M	M	M
Welch, 2011	M	M	NA	M	NA	L	NA	H	L	L	NA	H
Welschen, 2013	L	L	H	M	H	L	L	L	L	H	H	H
West, 2007	M	M	NA	M	NA	L	NA	L	L	L	NA	M
Wierenga, 1994	M	M	H	M	H	L	H	H	M	L	H	H
Wing, 2013	M	M	H	M	H	L	L	L	L	L	H	M
Wolever, 2010	M	M	H	M	H	L	H	H	L	L	H	H
Wolf, 2004	L	L	H	M	H	L	M	M	L	L	H	M
Yoo, 2007	L	M	NA	M	NA	L	NA	H	L	L	NA	H
Zgibor, 2013	M	M	M	M	M	L	H	H	L	L	H	H

AC = allocation concealment; Blinding of OA = blinding of outcome assessors; Blinding of PP = blinding of participants and personnel; H = high risk of bias; IOD = incomplete outcome data; L = low risk of bias; M = medium or unclear risk of bias; NA = not applicable; Other = other sources of bias; Overall = overall risk of bias assessment; SG = sequence generation; SOR = selective outcome reporting

Appendix F. Description of Studies and Interventions

Table F1. Description of studies and interventions for T1DM in youth

Table F2. Description of studies and interventions for T1DM in adults

Table F3. Description of studies and interventions for T2DM

Table F1. Description of studies and interventions for T1DM in youth

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Anderson, 1999 U.S. (MA)	I= 30 UC= 28 AC= 31	I= 12.7±1.4y, 50%, NR, 8.3±1.1% UC = 12.5±1.4y, 52%, NR, 8.6±0.9% AC= 12.7±1.4y, 50%, NR, 8.7±1.2%	DSME; office-based Parent Adolescent Teamwork intervention	12m, 4, 1.5-2h	In-person	Individual with family	Non-HCP (research assistant)	Minimal – Content & Delivery	None/NR
Boardway, 1993 U.S. (MI)	I= 13 UC= 18	I= 15.4±1.2y, 22%, 30%, 13.9±2.4% UC= 14.3±1.7y, 60%, 33%, 15.7±3.6%	DSME; stress management & regime adherence training with active SMBG	6m, 13, NR	In-person	Group	HCP (RN)	Moderate-to-High - Content	None/NR
Christie, 2014 United Kingdom	I= 182 UC= 183	I= 13.1±2.1y, 42.8%, 13.2%, 9.9±1.5% UC= 13.2±2.1y, 46.4%, 20.2%, 10.0±1.5%	DSME; CASCADE intervention with MI & solution-focused brief therapy	4m, 4, 8h	In-pNPerson	Group with families	Multidisciplinary (DSN with any HCP)	Moderate-to-High - Content	Yes
Cook, 2002 U.S. (IL, NY)	I= 26 UC= 27	I= 14.8±1.2y, 50%, 12%, 8.8±1.3% UC= 14.4±1.4y, 37%, 19%, 9.2±2.0%	DSME; Choices Diabetes Program focus on problem solving	1.5m, 6, 12h	In-person	Group	HCP (not specified)	Moderate-to-High - Content	None/NR
Ellis, 2007 U.S. (MI)	I= 64 UC= 63	I= 13.4±1.9y, 59%, 80%,	DSME; Multisystemic Therapy (family-	5.7m, 48±19, 48h	In-person	Individual with family	HCP (therapists)	Moderate-to-High -	Yes

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		11.4±2.2% UC= 13.1±2.0y, 38%, 68%, 11.3±2.2%	centered, home and community-based psychotherapy)					Content & Delivery	
Ellis, 2012 U.S. (MI)	I= 74 AC= 72	I= 14.2±2.2y, 43%, 82%, 11.6±2.5% AC= 14.1±2.4y, 44%, 78%, 11.8±2.6%	I= DSME; Multisystemic Therapy (family-centered, home and community-based psychotherapy) AC= Telephone support	I= 5.6m, 45.7±18.6, 46h AC= 4.9m, 14.0±6.3, 7h	I= In-person AC= Technology (telephone)	1= Individual with family AC= Individual	HCP (Psych or Social workers)	I= Moderate-to-High - Content & Delivery AC= Moderate-to-High - Content & Delivery	I= Yes AC= None
Franklin, 2006 Scotland	I= 33 UC= 28 Not reporting on Intensive insulin therapy (IIT) plus Sweet Talk arm	I= 14.1 (11.7-15.6)y, 45.5%, 3%, 9.8 (8.6-11.5) (Median IQR) UC= 12.7 (10.5-14.8)y, 63%, 3.7%, 10.1 (9.2-11.2) (Median, IQR)	DSME; Sweet Talk (automated weekly delivery of tailored text messages to reinforce/support goals made in clinics)	12m, 3-4, NR (during clinic visits)	Mixed	Individual	Multidisciplinary (RA & care team)	Minimal – Content & Delivery	None/NR
Freeman, 2013 U.S. (OR)	I_1= 44 I_2= 46	I_1= 15.0±1.8y, 47.3%, NR, 11.2±1.7% I_2= 14.9±1.8y, 52.7%, NR, 11.0±1.7%	I_1= DSME; BFST-D (Behavioral Family Systems Therapy for Diabetes) delivered in-person I_2= DSME; BFST-D delivered via videoconferencing	I_1= 3m, 7.56, 8-12h I_2= 3m, 7.03, 7-10.5h	I_1= In-person I_2= Technology	I_1= Individual with family I_2= Individual with family	I_1= HCP (Psych) I_2= HCP (Psych)	I_1=Moderate to High – Content & Delivery I_2= Moderate to High – Content & Delivery	I_1= Yes I_2= Yes
Holmes,	I= 137	I= 13.0±1.2y,	I= DSME; clinic-	I= 12m, 4 +	I= Mixed	I= Individual	I= Non-HCP	I= Moderate-	I=

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
2014 U.S.	AC= 89	44.5%, 32.1%, 8.8% AC= 12.7±1.2y, 53.9%, 24.7%, 8.9%	integrated low-intensity coping skills training, conflict resolution & communication AC= Non-DSME education	telephone contacts, 3h + telephone contact time AC= 12m; 4, 1h	AC= In-person	with parent AC= Individual with parent	(graduate-level interventionists) AC= Non-HCP (bachelor-level facilitators)	to-High – Content & Delivery AC= None	None/NR AC= None/NR
Husted, 2014 Denmark	I= 37 UC= 34	I= 14.9±1.5y, 38%, NR, 9.5±3.7% UC= 14.6±1.3y, 40%, NR, 8.8±3.0%	DSME; Guided Self-Determination-Youth (clinic-based intervention focused on life skills to facilitate empowerment)	20m, 12 (8-16), 8-12h	In-person	Individual with family	Multidisciplinary (RN or Physician and RD)	Moderate-to-High – Content & Delivery	None/NR
Katz, 2014 U.S. (MA)	I= 50 UC= 51 NR on active control	I= 12.7±2.2y, 42%, 10%, 8.4±1.4% UC= 12.5±2.3y, 55%, 2%, 8.4±1.3%	DSME; clinic-integrated family-based psychoeducation & Care Ambassador	25m, 9.4±1.5 + 25 Care Ambassador contacts, 4.75h + Care Ambassador contacts (4+h)	Mixed	Individual with family	Non-HCP (research assistant)	Moderate-to-High – Content & Delivery	None/NR
Kichler, 2013 U.S. (MI)	I= 16 UC= 15	NR by arm; 15.2±1.3y, 47%, 23%, 10±2.1%	DSME; Diabetes Adjustment and Coping Group Therapy Program - K.I.D.S. Project intervention with behavioral and family system strategies	1.5m, 6, 6h	In-person	Group with families	Non-HCP (trainee) & HCP (Pysch)	Moderate-to-High – Content & Delivery	None/NR
Laffel, 2003 U.S. (MA)	I= 50 UC= 50	I= 11.9±2.4y, 47%, NR, 8.4±1.7% (all	DSME; clinic integrated CBT-based family-focused	12m, 4, NR	In-person	Individual with family	Non-HCP (research assistant)	Minimal – Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		participants) UC= 12.2±2.2y, NR	teamwork intervention						
Lehmkuhl, 2010 U.S. (FL)	I= 18 UC= 14	I= 13.7±2.7y, 39%, NR, 10.8±2.1% UC= 13.4±2.2y, 14%, NR, 10.4±1.9%	DSME; Telehealth Behavioral Therapy (utilized some of the principles of BFST intervention)	2.8m, 36, 11h	Technology	Individual with family	Non-HCP (therapist interns)	Moderate-to-High – Content & Delivery	None/NR
McNabb, 1994 U.S. (IL)	I= 12 UC= 12	I= 9.7y, NR, NR, 10.5±2.9% UC= 10y, NR, NR, 12.9±3.8%	DSME; In Control program for children to gain self-care independence	1.5m, 6, 6h	In-person	Group with families	HCP (NR)	Minimal-to-High – Content	None/NR
Murphy, 2007 United Kingdom	I= 37 UC= 41	I= 12.6±2.3y, 55%, NR, 9.1±1.0% UC= 13.1±2.0y, 56%, NR, 9.1±1.5%	DSME; clinic-integrated group family sessions focused on family teamwork (Families, Adolescents and Children's Teamwork Study (FACTS))	12m, 4, 4h	In-person	Group with families	Multidisciplinary (DSN, RD, Physician)	Minimal - Delivery	None/NR
Murphy, 2012 United Kingdom	I= 158 UC= 147	I= 13.1±1.9y, 47%, 7%, 9.2±1.7% UC= 13.2±2.0y, 49%, 9%, 9.4±2.1%	DSME; clinic-integrated group family sessions focused on family teamwork (FACTS)	6m, 6, 9h	In-person	Group with families	Multidisciplinary (DSN, RD, Physician)	Minimal - Delivery	None/NR
Nansel, 2007 U.S. (MD)	I= 40 UC= 41	I= 13.6±1.9, 42.5%, 17.5%, 46.3±34.1 (% above upper	DSME; Self-regulation and MI intervention using Diabetes Personal	2m, 6 + telephone calls, NR	Mixed	Individual	Non-HCP (health field students)	Moderate-to-High – Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		limit) UC= 13.9±1.6, 46.3%, 12.2%, 42.2±28.6 (% above upper limit)	Trainers for self-monitoring, goal-setting and problem solving sessions						
Nansel, 2012 U.S. (MA, IL, FL, TX)	I= 201 UC= 189	I= 12.5±1.8y, 49.3%, 24%, 8.4±1.2% UC= 12.4±1.7y, 49,2%, 26%, 8.3±1.1%	DSME; WE*CAN Manage Diabetes program focusing on problem solving approach	21m, 6 + 12 telephone calls, 3h + telephone contact time	Mixed	Individual with family	Non-HCP (trained health advisors)	Moderate-to-High – Content & Delivery	None/NR
Thomas-Dobersen, 1993 U.S. (CO) Observ.	I= 11 UC= 9	I= 13.9y (12-17, range), 9.1%, NR, 12.2 (9-15.8)% UC= 15.2y (12-18, range), 0%, NR, 13.1 (9.9-16.9)%	Lifestyle; SHAPEDOWN (family-based multidisciplinary behavior modification program)	3m, 14, 21h (Each contact had separate sessions for adolescents and parents)	In-person	Group (sessions for adolescents and parent separate)	Multidisciplinary (RD, Psych & child health associate)	Minimal - Content	None/NR
Viklund, 2007 Sweden	I= 28 UC= 27	I= 14.3±1.6y, 43%, NR, 7.4±1.2% UC= 14.1±0.8y, 39%, NR, 8.1±1.8%	DSME; empowerment program with problem-based learning	1.5m, 6, 12h	In-person	Group	HCP (DSN)	Moderate-to-High – Content	None/NR
Viner, 2003 United Kingdom Observ.	I= 21 UC= 20	I= 13.0, 28%, NR, 10.2 (SE 0.3) UC= 13.3, 60%, NR, 10.0 (SE	DSME; motivational/solutions -focused group intervention	1.5m, 6 + 1 for parents, NR	In-person	Group (sessions for adolescents and parents separate)	NR	Moderate-to-High – Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		0.3)							
Wysocki, 2007 U.S. (MO, FL)	I= 36 AC= 36 UC= 32	I= 13.9±.9y, 58%, 39%, 9.6±1.6% AC= 14.4±1.9y, 56%, 25%, 9.7±1.6% UC= 14.2±1.9y, 50%, 47%, 9.5±1.5%	I= DSME; BFST-D AC= Non-DSME education	I= 6m, 12, 18h AC= 6m, 12, 18h	I= In-person AC= In-person	I= Individual with family AC= Group with families	I= Multidisciplinary AC= Multidisciplinary	I= Moderate-to-High – Content & Delivery AC= None	I= None/NR AC= None/NR

AC= active control; CBT= cognitive behavioral therapy; DSME= diabetes self-management education; DSN= diabetes specialist nurse; HCP= health care professional; I= Intervention; MI= motivational interviewing; NA= not applicable; NR= not reported; Observ.= observational study design; Pysch= psychologist; RA= research assistant; RD= registered dietitian; RN= registered nurse; SMBG= self-monitoring blood glucose; UC= usual care

Table F2. Description of studies and interventions for T1DM in adults

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Amsberg, 2009 Sweden	I= 46 UC= 48	I= 41.1±11.7y, 56%, NR, 8.5±0.9% C= 41.4±12.9y, 42%, NR, 8.5±0.8%	DSME + Support; CBT-based with CGMS ("Power to Choose Your Direction")	11, 12 + 5 telephone contacts, 18.25h + telephone contact time (Maintenance phase = 9m)	Mixed	Mixed	Multidisciplinary (RN, Pysch)	Moderate-to-High – Content & Delivery	None/NR
Forlani, 2006 Italy Observ.	I= 54 UC= 36	I= 43 (18–65)y (Median, Range), 33%, NR, 8.2±1.6% UC= 41 (26–65)y (Median, Range), 66%, NR, 8.1±1.2%	DSME; empowerment group teaching & situation simulation	4m, 8, 16h	In-person	Group	HCP (Physician or RD)	Moderate-to-High - Content	None/NR
Hermanns, 2013 Germany	I= 81 AC= 79	I= 45.9±13.8y, 61.7%, NR, 8.3±1.1% AC= 45.1±13.4y, 50.6%, NR, 8.0±0.9%	I= DSME; PRIMAS empowerment approach AC= Non-DSME education; standard in Germany	I= 1.5m, 12, 18h AC= 1.5m, 12, 18	I= In-person AC= In-person	I= Group AC= Group	I= HCP (CDE) AC= HCP (CDE)	I= Moderate-to-High – Content AC= None	I= None/NR AC= None/NR
Ismail, 2008 United Kingdom	I= 106 UC= 121 NR on Active control	I= 37.2±9.9y, 37.7%, 21%, 9.6±1.3% UC=36.4±11.3y, 45,4%, 14%, 9.7±1.2%	DSME; Motivational Enhancement Therapy & CBT	6m, 12, 10h	In-person	Individual	HCP (DSN)	Moderate-to-High - Content	None/NR

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Karlsen, 2004 Norway	I= 47 UC= 45	I= 49.2±14.7y, 52%, NR, 7.9±1.2% UC= 48.6±10.3y, 53%, NR, 8.4±1.2%	DSME; CBT-based program	6m, 6, 9h	In-person	Group	Non-HCP (peers) & HCP (DSN)	Moderate-to-High – Content & Delivery	Yes
Mannucci, 2005 Italy (Non-RCT)	I= 96 UC= 37	I= 30.7±8.4y, 44%, NR, 7.7±1.4% UC= 30.3±12.2y, 43%, NR, 7.9±1.6%	DSME; Interactive Educational and Support Group (IESG), physician-led long-term open group education program	12m, 26, 52h	In-person	Group	HCP (Physicians)	Moderate-to-High – Content & Delivery	None/NR
Perry, 1997 New Zealand	I= 31 UC= 30	I= 41.5±11.6y, 66.7%, NR, 8.9±2.6% UC= 42.8±12.6y, 48.4%, NR, 8.7±2.0%	Lifestyle; multiple topics with individualized diet and physical activity prescriptions	6m, 6 + additional sessions or telephone calls, NR	In-person	Individual	Multidisciplinary (RD & others in research team)	Moderate-to-High – Content & Delivery	None/NR
Weinger, 2011 U.S. (MA)	I=74 AC_1= 75 AC_2= 73	I= 51.8 (23.7-74.2)y 54%, 12% 9.0 (7.6-12.6)%, 50% AC_1= 54.7 (25.0-75.1)y 52%, 11% 8.8 (7.6-13.6)%, 50%	I= DSME; CBT-based group education program AC_1= Non-DSME (didactic group sessions) AC_2= Non-DSME (individual RN &	I= 1.5m, 5, 10h AC_1= 1.5, 5, 10h AC_2= 6m, NR, NR	I= In-person AC_1= In-person AC_2= In-person	I= Group AC_1= Group AC_2= Individual	I= Multidisciplinary (RN, RD) AC_1= RN AC_2= Multidisciplinary (RN, RD)	I= Moderate-to-High – Content AC_1= Minimal – Content AC_2= Minimal –	I= None/NR AC_1= None/NR AC_2= None/NR

Author, Year & Country	Comparison & Sample Size	Age, Males, Ethnic Minorities, HbA1c	Intervention Category & Description	Total Duration, # Contacts, Contact Time	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed)	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		AC_2= 56.2 (21.6-74.8)y 42%, 15% 8.6 (7.6-13.1)%, 49%	RD consults offered)					Content & Delivery	
Zoffmann, 2006 Denmark	I= 36 UC= 25	I= 36.8±1.7y, 46.5%, NR, 9.0±0.2% UC= 35.7±2.1y, 50%, NR, 9.1±0.2%	DSME; Guided Self-Determination Group Training	2m, 8, 16h	In-person	Group	Multidisciplinary (RN & researcher)	Moderate-to-High – Content & Delivery	None/NR

AC= active control; CBT= cognitive behavioral therapy; CDE= certified diabetes educator; CGMG= continuous glucose monitoring system; DSME= diabetes self-management education; DSN= diabetes specialist nurse; HCP= health care professional; I= Intervention; NA= not applicable; NR= not reported; Observ.= observational design; Psych= psychologist; RD= registered dietitian; RN= registered nurse; SMBG= self-monitoring blood glucose; UC= usual care

Table F3. Description of studies and interventions for T2DM

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Adachi, 2013 Japan	I= 100 UC= 93	I= 60.4±11.4y 45%, NR 26.3±4.6kg/m^2 7.6±1.4%, 1-% UC= 62.3±10.1y 42%, NR 24.9±4.6kg/m^2 7.3±1.1%, 13%	DSME; SILE (Structured Individual-based Lifestyle Education), focus on diet but also self-management through activity and stress management	6m; 3.5; NR; NA	In-person	Individual	HCP (RD)	Moderate-to-High – Content	None/NR
Adolfsson, 2007 Sweden	I= 50 UC= 51	I= 62.4±8.9y 57%, NR 30.4±4.3 7.4±1.0%, 0% UC= 63.7±9.0y 61%, NR 29.6±3.3kg/m^2 7.1±0.8%, 0%	DSME; empowerment group education	7m; 4.7, 12h; NA	In-person	Group	Multidisciplinary (DSN, Physician)	Moderate-to-High – Content & Delivery	None/NR
Agurs-Collins, 1997 U.S. (DC)	I= 32 UC= 32	I= 62.4±5.9y 34%, 100% 33.9±5.1kg/m^2 11.0±1.7%, 40% UC= 61.0±5.7y 12%, 100% 34.9±6.8kg/m^2 10.0±1.9%, 50%	Lifestyle; hospital-based lifestyle program (Diabetic Exchange Lists) to achieve ≤0.9kg wt loss/wk & moderate physical activity ≥3 x/wk with weekly group exercises for 3m) tailored to older African Americans	6m; 19, 28h; 3m	In-person	Mixed with supports	HCP (RD) Minimal from exercise physiologist	Moderate-to-High – Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Amoako, 2008 U.S. (NC)	I= 34 UC= 34	All= 61±9.5y 0%, 100% NR, 0%	DSME; psycho-educational uncertainty management intervention (DU-UMI) for older African American women	1m; 4, 1h; NA	Technology	Individual	HCP (NP)	Moderate-to-High – Content & Delivery	Yes
Anderson D, 2010 U.S. (CT)	I= 146 UC= 149	I= NR 41%, 72.6% 35.4±8.6 7.6±1.8%, NR UC= NR 43%, 73.8% 33.7±6.6 8.4±2.3%, NR	DSME; telephonic disease management in a community health center for medically underserved, predominantly Hispanic population	12m; 18, NR; NA	Technology	Individual	HCP (RN)	Moderate-to-High – Content & Delivery	None/NR
Anderson R, 1995 U.S. (MI)	I= 23 UC= 23	All= 50y 30%, NR 54% using insulin HbA1c I=11.75±3.0% UC= 10.8±2.9%	DSME; "Empowerment: Facilitating a Path to Personal Self-Care"	1.5m; 6, 12h; NA	In-person	Group with supports	HCP (CDE)	Moderate-to-High – Content & Delivery	None/NR
Anderson R, 2005 U.S. (MI)	I= 125 UC= 114	All= 61.0±11.4y 18%, 96% 91.3±20.6kg HbA1c	DSME; problem-based empowerment program for African Americans	1.5m; 6, 12h; NA	In-person	Group with supports	Multidisciplinary (RD, RN)	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		I= 8.7±2.13% UC= 8.4±2.2%							
Anderson R, 2009 U.S. (MI)	I= 156 UC= 154	I= 55.5±11.3y 43.6%, 40.9% 34.9±9.0kg/m^2 7.7±2.1%, 27.7% UC= 55.7±11.5y 39%, 50% 33.8±7.8kg/m^2 7.5±1.8%, 26.3%	DSME; Diabetes Self-Management Consultant (DSMC) manager intervention based on empowerment approach	24m; 24; NR; NA	Mixed	Individual	HCP (RD or RN both CDE)	Moderate-to-High – Content & Delivery	None/NR
Anderson-Loftin, 2005 U.S. (SC)	I= 49 UC= 48	I= 58.9±10.1y 22%, 100% 35.4±8.1kg/m^2 7.5±1.6%, 17% UC= 55.7±12.1y 25%, 100% 34±8.3kg/m^2 8.3±2.6%, 13%	Lifestyle; Soul Food Light: culturally competent diabetes diet education and peer-professional support groups for rural black southerners	5m; 8+16 telephone followup calls, 10h + call duration; NA	Mixed	Mixed with supports	Multidisciplinary (RD, RN)	Moderate-to-High – Content & Delivery	Yes
Baksi, 2008 England	I_1= 43 I_2= 40	I_1= 59.3±13y 57.6%, NR 28.7±5.5kg/m^2 7.4±1.3%, 21.4% I_2= 60.5±11y 47.1%, NR 32.5±5.3kg/m^2	I_1= DSME; delivered by health professionals I_2= DSME; delivered by peers	I_1= 6m; 6, 9h; NA I_2= 6m; 6, 9h; NA	I_1= In-person I_2= In-person	I_1= Group I_2= Group	I_1= HCP (DSN) I_2= Non-HCP (peer) & HCP (DSN)	I_1= Minimal – Content & Delivery I_2= Minimal – Content & Delivery	I_1= None/NR I_2= Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		7.6±1.6%, 33.3%							
Barratt, 2008 England	I= 27 UC= 26	I= 55.8±11.3y 44%, NR 33.8±5.3kg/m^2 9.6±1.7%, 100% UC= 55.8±11.3y 46%, NR 32.1±4.3kg/m^2 9.7±1.2%, 100%	Lifestyle; weight loss and lifestyle program (500kcal deficit and 150mins/wk PA) with MI to prevent weight gain following initiation of insulin	6m; 6, 4h; NA	In-person	Individual	HCP (RD)	Minimal – Content & Delivery	None/NR
Beverly, 2013 U.S. (MA)	I= 68 AC= 67	I= 59.9±8.5y 52.2%, 26.9% 34.6±7.0kg/m^2 8.5±1.4%, NR AC= 58.4±9.0y 44.7%, 29.8% 33.7±7.1kg/m^2 8.3±1.0%, NR	I= DSME; reinforcement of education using conversation map tools AC= Non-DSME education; Heart Healthy sessions	I= 1m; 4, 4h; NA AC= 1m; 2, 4h; NA	I= In-person AC= In-person	I= Group AC= Group	I= Multidisciplinary (RD, RN) AC= Multidisciplinary (RD, RN)	I= Minimal – Content AC= Minimal – Content	I= None/NR AC= None/NR
Bond, 2007 U.S. (WA)	I= 31 UC= 31	I= 66.2±5.7y 58%, 13% 90.7±16.3kg 7.0±1.1%, 94% UC= 68.2±6.2y 52%, 14% 92.5±18.1kg 7.1±0.9%, 94%	DSME; web-based DSME with self-management tracking, online education and support sessions and MSN communication for older adults	6m; 26+, NR; NA (Plus instant messaging, email & chats)	Technology	Mixed	HCP (RN)	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		(T1DM 13%)							
Bozzetto, 2014 Italy	I_1= 11 I_2= 8 AC_1= 10 AC_2= 9	I_1= 63±5y 72.8%, NR 31±3kg/m^2 6.7±0.9%, 0% I_2= 59±8y 100%, NR 29±2.0kg/m^2 6.9±0.6%, 0% AC_1= 58±4y 70%, NR 30±2.0kg/m^2 6.3±0.3%, 0% AC_2= 56±7y 77.8%, NR 28±3kg/m^2 6.6±0.8%, 0%	I_1= Lifestyle; high-carbohydrate, high-fibre diet (no caloric restriction) plus supervised PA I_2= Lifestyle; high-MUFA diet (no caloric restriction) plus supervised PA AC_1= Diet; high-carbohydrate, high-fibre diet AC_2= Diet; high-MUFA diet	I_1= 1.8m; 16, NR; NA I_2= 1.8m; 16, NR; NA AC_1= 1.8m; 8, NR; NA AC_2= 1.8m; 8, NR, NA (Plus twice weekly telephone calls to check adherence)	I_1= Mixed I_2= Mixed AC_1= Mixed AC_2= Mixed	I_1= Individual I_2= Individual AC_1= Individual AC_2= Individual	I_1= Multidisciplinary (RD, exercise physiologist) I_2= Multidisciplinary (RD, exercise physiologist) AC_1=HCP (RD) AC_2= HCP (RD)	I_1= Minimal – Delivery I_2= Minimal – Delivery AC_1= Minimal & Delivery AC_2= Minimal – Delivery	I_1= None/NR I_2= None/NR AC_1= None/NR AC_2= None/NR
Bradshaw, 2007 U.S. (UT)	I= 30 UC= 37	I= 60.8±11.0y 32%, 0% NR 6.7±1.2%, 23% UC= 57.5±11.0y 38%, 17% NR 6.9±1.1%, 23%	DSME; DSME meeting standards with RTAD (Resiliency Training Approach for Diabetes)	1.2m; 10, 15h; NA	In-person	Group	Multidisciplinary (CDE, RD)	Minimal – Content	None/NR
Brown, 2002 U.S. (TX)	I= 128 UC=	I= 54.7±8.2y 40%, 100%	DSME + Support; culturally	12m; 27, 54h; 9m	In-person	Group with supports	Non-HCP (CHW) &	Moderate-to-High – Content	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
	128	32.3±6.0kg/m^2 11.8±3.0%, 26% UC= 53.3±8.3y 32%, 100% 32.1±6.4kg/m^2 11.8±3.0%, 27%	competent, community-based self-management intervention for Mexican Americans				Multidisciplinary (RN, RD)	& Delivery	
Brown, 2005 U.S. (TX)	I_1= 114 I_2= 102	I_1= 49.6±7.6y 39.5%, 100% 32.2±5.8kg/m^2 11.8±3.4%, 9.6% I_2= 49.6±8.2y 40.2%, 100% 32.9±8.3kg/m^2 11.5±3.5%, 7.4%	I_1= DSME + Support; compressed version of culturally competent, community-based DSME for Mexican Americans I_2= DSME + Support; intense version of DSME + Support	I_1= 12m; 11, 22h; 10m I_2= 12m; 26, 52h; 9m	I_1= In-person I_2= In-person	I_1= Group with supports I_2= Group with supports	I_1= Non-HCP (CHW) & Multidisciplinary (RN, RD) I_2= Non-HCP (CHW) & Multidisciplinary (RN, RD)	I_1= Moderate-to-High – Content & Delivery I_2= Moderate-to-High – Content & Delivery	I_1= Yes I_2= Yes
Brown, 2011 U.S. (TX)	I_1= 48 I_2= 35	I_1= 49.7±9.2y 25.7%, 100% 32.2±5.4kg/m^2 10.6±3.0%, 21.3% I_2= 49.0±7.8y 35.4%, 100%	I_1= DSME + Support; culturally tailored group DSME for Mexican Americans I_2= DSME +	I_1= 6m; 10; 20h; 4m I_2= 6m; 15; 20h+; 4m	I_1= In-person I_2= Mixed	I_1= Group with supports I_2= Mixed with supports	I_1= Multidisciplinary (RN, RD) I_2= Multidisciplinary (RN, RD)	I_1= Moderate-to-High – Content & Delivery I_2= Moderate-to-High – Content &	I_1= Yes I_2= Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		34.6±7.6kg/m^2 9.2±2.7%, 16.7%	Support; addition of case manager to coordinate care					Delivery	
Castejon, 2013 U.S. (FL)	I= 19 UC= 24	I= 54±9y 42%, 100% 31.2±1.9kg/m^2 8.3±0.4%, NR UC= 55±10y 21%, 100% 31.5±1.3kg/m^2 8.2±0.4%, NR	DSME; Pharmacist-centered Assessment and Reinforcement of Diabetes Self-efficacy (PARDS), community-based pharmacist intervention for Latinos	1.5m; 4, 4.5h; NA	In-person	Mixed with supports	Non-HCP (graduate student) & HCP (Pharmacist)	Moderate-to-High - Content	Yes
Chan, 2014 Hong Kong	I= 312 AC= 312	I= 54.5±9.9y 57.1%, NA 26.6±4.3kg/m^2 8.2±1.7%, 37.7% AC= 54.8±8.6y 56%, NA 27.1±4.6kg/m^2 8.2±1.6%, 32%	I= DSME; empowerment DM class followed by peer telephone support AC= Non-DSME education; empowerment DM class	I= 12m; 14; 7h; NA AC= 12m; 1, 2h; NA	I= In-person AC= In-person	I= Mixed AC= Group	I= Non-HCP (peer) & HCP (RN) AC=RN	I= Moderate-to-High – Content & Delivery AC= Minimal - Content	I= Yes AC= None/NR
Chan, 2012 Hong Kong	I= 107 UC= 101	I= 71.7±8.0y 34.3%, NA 24.8±3.6kg/m^2 7.4±1.5%, 22.2% UC= 72.0±7.9y 25.3%, NA	DSME; problem-solving group education with PA practice for older adults	2m; 8, 16h; NA	In-person	Group	HCP (allied HCP)	Minimal – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		24.6±3.8kg/m^2 7.0±1.2%, 25.3%							
Cheong, 2009 Canada	I= 22 AC= 22	I= 55.4±2.2y 58%, NR 32.6±1.3kg/m^2 7.2±0.3%, 0% AC= 54.8±1.4y 53, NR 35.5±1.4kg/m^2 7.2±0.2%, 0% (SEM used)	I= Lifestyle; First Step First Bite Program focused on walking more and low GI foods AC= PA portion of Lifestyle	I= 1m; 4, 4-6h; NA AC= 1m; 4, 4-6h; NA	I= In-person AC= In-person	I= Group AC= Group	I= Non-HCP (graduate student) AC=Non- HCP (graduate student)	I= Minimal – Content AC= Minimal - Content	I= None/NR AC= None/NR
Clark, 2004 United Kingdom	I= 50 UC= 50	All= 59.5y 58%, NR 31±4kg/m^2 8.4±1.6%, 21%	Lifestyle; individualized diet and PA goals with brief MI based on assessment of stage of change and barrier identification	6m; 12, 3h; NA	Mixed	Individual	HCP (interventionist)	Moderate-to-High- Content & Delivery	None/NR
Cooper, 2008 United Kingdom	I= 53 UC= 36	All= 58.6 (35-73)y 56% male HbA1C I= 8.5±2.3% UC= 7.8±2.2%	DSME; Looking After Yourself, empowerment-based education program with focus on systems of motivation and relaxation training	2m; 8, 16h; NA	In-person	Group	HCP (DSN)	Minimal – Content	None/NR
Corkery, 1997 U.A. (NY)	I_1= 34 I_2= 30	All= 52.±11.7y 26%, 100%	I_1= DSME; ADA standards for low-	I_1= 3.4m I_2= 3.4m	I_1= In-person	I_1= Individual (30% with	I_1= HCP (RN/CDE)	I_1= Moderate-to-High –	I_1= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		NR 11.7±3.7%, NR	income and literacy Hispanics I_2= DSME; addition of CHW for support and care coordination		I_2= In-person	supports) I_2= Individual (30% with supports)	I_2= Non-HCP (CHW) & HCP (RN/CDE)	Content & Delivery I_2= Moderate-to-High – Content & Delivery	I_2= Yes
Cramer, 2007 U.S. (NY)	I= 27 UC= 24	I= HbA1c ≥8% UC= HbA1c ≥8%	Lifestyle; Modified Diabetes Prevention Program (DPP) teaching plan	9m; 16, NR; NA	Mixed	Individual	HCP (RN)	Moderate-to-High – Content	None/NR
Dasgupta, 2006 Canada	I= 21 AC= 21	I= 54 (47-58)y 57%, NR 36.6(31.6-39.8) kg/m^2 7.2(6.1-7.7)%, 0% AC= 49 (46-55)y 43%, NR 36.4 (32.8-41.8) kg/m^2 7.1 (6.3-7.4)%, 0% (Median, IQR)	I= Lifestyle; diet counseling and supervised aerobic moderate-intensity exercise 3x/wk tapering AC= Diet portion of Lifestyle	I= 6m; 54, 50.5h; NA AC= 6m; 6, 2.5h; NA	I= In-person AC= In-person	I= Mixed AC= Mixed	I= Multidisciplinary (RD, exercise physiologist) AC= HCP (RD)	I= Minimal – Content AC= Minimal - Content	I= None/NR AC= None/NR
Davis, 2010	I= 85 UC= 80	I= 59.9±9.4y 27.1%, 75.3% 37.1±8.1kg/m^2	DSME; Diabetes TeleCare for underserved	12m; 13, NR; NA	Mixed	Mixed	Multidisciplinary (RN/CDE, RD, LPN)	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		9.3±1.9%, 16.3% UC= 59.2±9.3y 23.7%, 72.5% 35.9±7.6 kg/m^2 8.9±1.8%, 22.8%	communities						
Deakin, 2006	I= 157 Att. C= 157	I= 61.3±9.7y 52%, NR 30.8±5.3kg/m^2 7.7±1.6%, 17% Att. C= 61.8±11.0y 52%, NR 30.6±5.7kg/m^2 7.7±1.6%, 17%	I= DSME; X-PERT Programme focused on empowerment and discovery learning Att. C= 3 booked contacts for RD, RN and GP	I= 1.5m; 6, 12h; NA Att. C= 1.5m; 1-3, 1h; NA	I= In-person Att. C= In-person	I= Group with supports Att. C= In-person	I= HCP (RD) Att. C= Multidisciplinary (RD, RN, GP)	I= Moderate-to-High – Content & Delivery Att. C= Minimal - Content	I= Yes Att. C= None/NR
D'Eramo-Melkus, 2010 U.S. (CT)	I= 52 AC= 57	I= 45±10y 0%, 100% 96±18kg 8.3±2.2%, 0% AC= 45±10y 0%, 100% 96±18kg 8.3±2.2%, 0%	I= DSME + Support; culturally relevant CBT-based behavioral DSMT plus coping skills training and followup support AC= Non-DSME education and support	I= 12m; 13, 12.5h+3 NP support visits; 9m AC= 12m; 14, 17+3 NP support visits; 9m	I= In-person AC= In-person	I= Mixed AC= Mixed	I= Multidisciplinary (NP, Psych) AC= HCP (NP)	I= Moderate-to-High – Content AC= None	I= None/NR AC= None/NR
Dunstan, 1997 Australia	I= 11 AC= 12	I= 52.3±8.3y 73%, NR 29.1±2.4kg/m^2	I= Lifestyle; low-fat diet with supervised	I= 1.8m; 24, 16h+weekly RD interview	I= In-person AC= In-	I= Individual AC=	I= Multidisciplinary (RD, Exercise	I= Minimal – Content	I= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		8.8±2.7%, 0% AC= 53.0±7.0y 75%, NR 29.7±4.3kg/m^2 8.1±1.4%, 0%	moderate intensity stationary cycling 3x/wk for older adults AC= Diet; low fat diet with supervised stretching 3x/wk	duration; NA AC= 1.8m; 24, 16h+weekly RD interview duration; NA	person	Individual (NR for PA component)	physiologist) AC= Multidisciplinary (RD, Exercise physiologist)	AC= Minimal - Content	AC= None/NR
Dunstan, 2005 Australia	I= 19 AC= 17	I= 67.6±5.2y 63%, NR 31.5±3.4kg/m^2 8.1±1.1%, 0% AC= 66.9±5.3y 46%, NR 32.5±3.8kg/m^2 7.5±1.1%, 0%	I= Lifestyle; moderate weight loss diet plus supervised and home-based high intensity (75-85% 1-RM) progressive resistance training AC= Diet; moderate weight loss diet with supervised and home-based stretching	I= 12m; 86, 72h+ time for 14 calls; 6m AC=12m; 86, 72h+ time for 14 calls; 6m	I= Mixed AC= Mixed	I= Individual AC= Individual	I= Multidisciplinary (RD, Exercise physiologist) AC= Multidisciplinary (RD, Exercise physiologist)	I= Minimal – Content & Delivery AC= Minimal – Content & Delivery	I= None/NR AC= None/NR
Eakin, 2014 Australia	I= 151 UC= 151	I= 57.7±8.1y 56%, 13.1% 33.1±6.3kg/m^2 7.6 (6.3-8.1)%, 15.2% UC= 58.3±9.0y 57%, 11.9%	Lifestyle; Living Well with Diabetes, telephone-delivered program with MI for weight loss (5-10% initial weight) and PA	18; 27, 11.25h; 12m	Technology	Individual	Non-HCP (telephone counselors)	Moderate-to-High – Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		33.2±6.0kg/m^2 7.0 (6.4-7.9)%, 13.2% (Median, IQR)	(≥210min/wk & 2-3 resistance/wk)						
Fisher, 2013 U.S. (CA)	I_1= 150 I_2= 146 AC= 96	I_1= 57±8.8y 52%, 58.7% 32.1±7.2kg/m^2 7.4±1.6% 15.3% I_2= 55.9±9.4y 44%, 58.2% 33.9±7.9kg/m^2 7.4±1.6%, 19.2% AC= 55.2±9.6y 41%, 64.6% 33.3±8.4kg/m^2 7.4±1.6%, 19.8%	I_1= DSME; My Path to Healthy Life, bilingual computer-assisted self-management program (CASM) focused on diet, PA and medication taking with followup calls I_2= DSME; CAPS (CASM plus problem solving therapy) AC= Non-DSME education; Computer health risk assessment, DM DVD and telephone contacts	I_1= 12m; 10, 3h ;8m I_2= 12m; 10, 3.5h; 8m AC= 12m; 8, 2h; NA	I_1= Mixed I_2= Mixed AC= Technology	I_1= Individual I_2= Individual AC= Individual	I_1= Non-HCP (nonprofessional college graduates) I_2= Non-HCP (nonprofessional college graduates) AC= Non-HCP (nonprofessional college graduates)	I_1= Moderate-to-High – Content & Delivery I_2= Moderate-to-High – Content & Delivery AC= None	I_1= None/NR I_2= None/NR AC= None/NR
Foster, 2009 U.S. (PA)	I= 35 AC= 34	I= 52.1±7.7y 25.7%, 63% 39.1±5.5kg/m^2 7.6±1.6%, 0%	I= Lifestyle; portion-controlled diet, prescribed PA regime (1250-	I= 2.8m; 12, NR; NA AC= 2.8m; 3,	I= In-person AC= In-person	I= Group AC= Group	I= HCP (not specified) AC= HCP (not	I= Minimal – Content AC= None	I= None/NR AC=

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		AC= 52.8±11.2y 32.2%, 56% 38.9±6.1kg/m^2 7.5±1.7%, 0%	1550 kcal/d; 20-25% fat & 20-25% protein), ≥200 mins PA/wk) and CBT-based behavioral weight loss treatment AC= Non-DSME education; didactic group sessions	NR, NA			specified)		None/NR
Foster, 2013 U.S. (PA)	I_1=50 I_2=50	I_1= 55.5±10.3y 58%, 68% 35.3±4.6kg/m^2 7.6±1.3%, NR I_2= 55.7±11.0y 60%, 60% 36.2±5.8kg/m^2 7.9±1.3%, NR	I_1= Lifestyle; behavioral lifestyle program with portion-controlled pre-packaged diet (1250-1550kcal/d; 20-25% fat & 20-25% protein), PA target ≥200 mins/wk and CBT-based behavioral training I_2= DSME; DSME meeting standards plus diet and exercise goals (as lifestyle arm) and meal plan	I_1= 6m; 9, 13.5h; NA I_2= 6m; 9, 13.5h; NA	I_1= In-person I_2= In-person	I_1= Group I_2= Group	I_1= Non-HCP (lifestyle counselor) I_2= HCP (CDE)	I_1= Minimal - Content I_2= Minimal - Content	I_1= None/NR I_2= None/NR
Frosch, 2011 U.S. (CA)	I= 100 UC=	I= 56.7±8.3y 46%, 78.8%	DSME; DVD program with	5m; 5; 2.5h; NA	Technology	Individual	HCP (RN)	Moderate-to-High –	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
	101	33.3±8.0kg/m^2 9.4±1.1%, NR UC= 54.3±8.9y 57%, 92% 32.8±7.4kg/m^2 9.8±2.1%, NR	health coaching via telephone for poorly controlled diabetes					Content & Delivery	
Gagliardino, 2013a Argentina	I_1= 105 I_2= 93	I_1= 60±10y 50%, NA 33±6kg/m^2 7.3±1.5%, NR I_2= 62±9y 47%, NA 32±7kg/m^2 7.1±1.5%, NR	I_1= DSME; Diabetes Structured Education Courses for People with Type 2 Diabetes including low calorie (1000kcal) diet and SMBG delivered by educators I_2= DSME + Support; same program delivered by peers with ongoing support	I_1= 6m; 5, 7.5h+; NA I_2= 12m; 46, 7.5h+peer support contact time; 11m	I_1= In-person I_2= Mixed	I_1= Group I_2= Mixed	I_1= HCP (diabetes educator) I_2= Non-HCP (peer)	I_1= Minimal – Content I_2= Moderate – Content & Delivery	I_1= None/NR I_2= Yes
Gagliardino, 2013b Argentina	I= 117 UC= 117 (Not reportin g on	I= 62.2±8.4y NR, NA 29.0kg/m^2 7.8±1.4%, NR UC= 62±8.4y NR, NA	DSME; Diabetes Structured Education Courses for People with Type 2 Diabetes including low	6m; 5, 7.5h+; NA	In-person	Group	HCP (diabetes educators)	Minimal – Content	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
	arms with physician education)	29.3kg/m^2 7.8±1.2%, NR	calorie (1000kcal) diet and SMBG						
Giannopoulou, 2005 U.S. (NY)	I= 11 AC_1= 11 AC_2= 11 (Analyzed)	I= 57.4±1.7y 0%, NR 33.7±1.9kg/m^2 6.8±0.5%, 0% AC_1= 55.5±1.7y 0%, NR 35.9±1.9kg/m^2 6.4±0.8%, 0% AC_2= 58.5±1.7y 0%, NR 34.3±1.9kg/m^2 7.3±0.5%, 0%	I= Lifestyle intervention with nutritional consulting (high monounsaturated fat and 600kcal energy deficit) and supervised walking program (60mins 3-4x/wk) AC_1= PA control AC_2= Diet control	I= 3.2; 42+, 42h+ nutritional counseling time; NA AC_1= 3.2m; 42+, 42h+; NA AC_2= 3.2m; 15, NR; NA	I= In-person AC_1= In-person AC_2= In-person	I= NR AC_1= NR AC_2= Individual	I= HCP (non specific) AC_1= HCP (non specific) AC_2= HCP (non specific)	I= Minimal – Content AC_1= Minimal – Content AC_2= Minimal – Content	I= None/NR AC_1= None/NR AC_2= None/NR
Glasgow, 2006a U.S. (CO)	I= 174 Att. C= 161	I= 62.0±11.7y 49.7%, 25.9% 31.3±7.0kg/m^2 7.4±1.6%, 24.2% Att. C= 61.0±11.0y 50%, 20.4% 31.9±7.2kg/m^2 7.5±1.6%,	I= DSME; CBT-based computer-assisted tailored intervention focused on healthy eating and PA with followup Att. C= computer-generated general health risk	I= 2m; 3, 1h+; NA (Plus tailored mail out) Att. C= NR	I= Mixed Att. C= Mixed	I= Individual Att. C= Individual	I= Non-HCP (health educators) Att. C= Non-HCP (health educators)	I= Minimal – Content & Delivery Att. C= NA	I= None/NR Att. C= NA

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		19.2%	appraisal with brief followup and counseling						
Glasgow, 2006b U.S. (CO)	I= 167 UC= 160	I= 61.1±11.4y 50%, 34% 32.1±7.0kg/m^2 7.3±1.5%, 27% UC= 61.1±11.4y 60%, 27% 33.3±8.0kg/m^2 7.2±1.3%, 22%	DSME; computer-assisted and tailored DSM intervention focused on diet and aerobic and strength PA	2m; 4, 1.5h; NA	Mixed	Individual	Non-HCP (graduates of health degrees)	Moderate-to-High – Content	None/NR
Glasgow, 2012 U.S. (CO)	I= 162 AC= 169 Att. C= 132	I= 57.8±9.3y 46.3%, 29.3% 35.3±0.5kg/m^2 8.3±0.1%, NR AC= 58.7±9.3y 55.4%, 25.9% 34.4±0.5kg/m^2 8.0±0.1%, NR Att. C= 58.7±9.1y 48.5%, 29.4% 34.8±0.6kg/m^2 8.2±0.2%, NR	I= DSME; My Path to Healthy Life, bilingual computer-assisted self-management program (CASM) focused on diet, PA and medication taking with followup calls and group sessions AC= Non-DSME education via (CASM) with periodic automated motivational calls	I= 12m; 3+, 1h+; NA (Plus computer use and invitation to 3- 2h group sessions but only 36% attended one) AC= 12m; NA (Computer use only) Att. C= 12m; NR	I= Mixed AC= NA Att. C= Technology	I= Mixed AC= Individual Att. C= Individual	I= Non-HCP (research staff member) & HCP (RD) AC= NA Att. C= NR	I= Moderate-to-High – Content & Delivery AC= Moderate-to-High – Content & Delivery Att. C= NA	I= Yes AC= Yes Att. C= NA

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
			Att. C= Tailored health risk assessment and brief contacts						
Goudswaard, 2004 The Netherlands	I= 28 UC= 30	I= 62.6±9.0y 52%, NR 30.2±4.4 8.2±1.1%, 0% UC= 58.7±11.4y 44%, NR 29.8±5.5 8.8±1.5%, 0%	DSME; collaborative education with emphasis on SMBG interpretation for patients on maximal oral hypoglycemic agents	6m; 6, 2.5h; NA	In-person	Individual	HCP (RN)	Minimal - Content	None/NR
Hawkins, 2010 U.S. (CT)	I= 40 Att. C= 36	I= 64y 14.7%, 82.4% 37.7±8.5kg/m^2 9.0±2.3%, NR Att. C= 65.8±10.4y 12.5%, 84.4% 38.6±6.9kg/m^2 8.9±3.1%, NR	I= DSME; videophone motivational program based on Life With Diabetes: A Series of Teaching Outlines and MI for older adults Att. C= handouts on general healthy living and monthly videophone calls	I= 6m; 16, 4.5h; NA (Plus reminder calls) Att. C= 6m; 6, 0.5h; NA	I= Technology Att. C= Technology	I= Individual Att. C= Individual	I= HCP (NP) Att. C= HCP (RN)	I= Moderate-to-High – Content & Delivery Att. C= NA	I= None/NR Att. C= NA
Hendricks, 2000 U.S. (MD)	I_1= 15 I_2= 15	I_1= 57.4±13.0y 100%, 100% 25-29kg/m^2 (33%);	I_1= DSME + Support; Lifeskills Diabetes Self-Management	I_1= 7m; 6, 8.5h; 6m I_2= 7m; 8, 9h; 6m	I_1= Mixed I_2= Mixed	I_1= Mixed I_2= Mixed	I_1= Multidisciplinary (NP, Psych both CDE)	I_1= Moderate-to-High – Content	I_1= None/NR I_2=

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		>30kg/m^2 (54%) 8.3±2.0%, NR I_2= 58.9±10.5y 100%, 100% 25-29kg/m^2 (40%); >30kg/m^2 (60%) 7.8±1.9%, NR	Training Program with empowerment approach and quarterly telephone support for African American men I_2= DSME + Support; Lifeskills Diabetes Self-Management Training Program with empowerment approach and monthly telephone support for African American men				I_2= Multidisciplinary (NP, Psych both CDE)	I_2= Moderate-to-High – Content & Delivery	None/NR
Hermanns, 2012	I= 94 AC= 92	I= 62.0±8.7y 47.9%, NR 33.3±5.6kg/m^2 8.4±1.5%, 100% (4.2±3.2 injections/day) AC= 63.9±7.8y 63%, NR 33.4±6.2kg/m^2 8.3±1.2%,	I= DSME; MEDIAS 2 ICT for initiation of intensive insulin therapy using empowerment approach and focus on metabolic risk factors	I= 1.25m; 10, 15h; NA AC= 1.25m; 10, 15h; NA	I= In-person AC= In-person	I= Group with supports for 1 session AC= Group	I= HCP (CDE) AC= HCP (CDE)	I= Minimal – Content AC= None	I= None/NR AC= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		100% (3.7±1.2 injections/day)	AC= Non-DSME education; didactic education						
Hill-Briggs, 2011 U.S. (MD)	I= 29 AC= 27	I= 61.1±11.0y 48.3%, 100% NR 8.5%, 35.2% AC= 61.5±10.9y 33.3%, 100% NR 8.3%, 33.3%	I= DSME; Project DECIDE (Decision-making Education for Choices In Diabetes Everyday), problem-solving-based diabetes self-management training for low income and literacy patients AC= Non-DSME; condensed 2-sessions of education and problem solving	I= 4.5m; 9, NR; NA AC= 0.5m; 2, NR; NA	I= In-person AC= In-person	I= Group AC= Group	I= HCP (interventionist) AC= HCP (interventionist)	I= Moderate-to-High – Content AC= Moderate-to-High - Content	I= None/NR AC= None/NR
Holtrop, 2002 U.S. (MI)	I= 67 UC= 65	I= 58y 0%, 5% 35.4±5.8kg/m^2 8.0%, 25.4% UC= 65y 0%, 5% 37.9±8.1kg/m^2 7.7%, 34%	DSME; Sticking to it- Diabetes Mellitus, behavioral education program focused on diet and exercise	1.5; 6+6 supportive telephone contacts, 9h+telephone duration; NA (Plus supportive telephone contacts between	Mixed	Mixed	Non-HCP (lay health advisors from the community)	Minimal – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
				sessions)					
Huisman, 2009 The Netherlands	I= 53 AC= 38 UC= 38	I= 60.1±6.8y 52%, 0% 36.0±6.8kg/m^2 7.3±1.3%, NR AC= 56.7±10.3y 42%, 0% 35.7±6.1kg/m^2 7.6±1.5%, NR UC= 56.7±9.9y 46%, 0% 35.0±5.3kg/m^2 7.2±1.1%, NR	I= Lifestyle; self-regulation program for weight reduction via MI to select personalized goals AC= Non-DSME education; self-help book with 12-week program with 1 in-person and 3 telephone consultations	I= 6m; 9, 17h; NA AC= 6m; 4, NR; NA	I= In-person AC= Mixed	I= Mixed with supports for 1 session AC= Individual	I= HCP (Psych) AC= HCP (RN)	I= Minimal – Content & Delivery AC= Minimal – Content & Delivery	I= None/NR AC= None/NR
Izquierdo, 2003 U.S. (NY)	I_1= 27 I_2= 29	I_1= 61.4±8.9y 59%, 5% 31.3±6.2kg/m^2 8.3±1.6%, NR (9% T1DM) I_2= 53.9±10.1y 33%, 5% 35.9±9.2kg/m^2 8.7±2.2%, NR (12% T1DM)	I_1= DSME; in-clinic delivery of DSME meeting standards and including coping skills and empowerment approach I_2= DSME; telemedicine delivery of DSME meeting standards and including coping skills and empowerment approach	I_1= 3m; 3, 4h; NA I_2= 3m; 3, 4h; NA	I_1= In-person I_2= Technology	I_1= Individual I_2= Individual	I_1= Multidisci-plinary (RD, RN) I_2= Multidisci-plinary (RD, RN)	I_1= Minimal – Content & Delivery I_2= Moderate-to-High – Content & Delivery	I_1= None/NR I_2= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Johnson, 2009 Canada	I= 22 AC= 19	I= 56.2y 42%, NR 32.7±5.9kg/m^2 6.5±1.3%, 0% AC= 56.2y 42%, NR 32.0±6.2kg/m^2 6.4±1.3%, 0%	I= Lifestyle; walking program with supervised walking 1x/wk and goal to increase intensity by 10% and diet training to exchange foods having low for high glycemic index AC= basic walking program (no defined targets) and basic dietary education on glycemic load	I= 3m; 8, NR; NA AC= 3m; 8, NR (All participants received 12-week basic walking program in early phase)	I= In-person AC= In-person	I= Group AC = Group	I= Non-HCP (health field graduate students) AC= non-HCP	I= Minimal – Content AC= Minimal - Content	I= None/NR AC= None/NR
Jones, 2003 Canada	I= 250 UC= 250 (Not reporting on groups receiving free glucose testing strips)	I= 55.1y 56.4%, NR 32.2kg/m^2 8.43%, 32% UC= 54.6y 50%, NR 31.6kg/m^2 8.48%, 34.4%	DSME; Pathways to Change, stage-matched personalized assessment and counseling for SMBG, healthy eating and smoking cessation	12m; 5, NR; NA (Plus newsletters)	Technology	Individual	NR	Moderate-to-High – Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Keyserling, 2002 U.S. (NC)	I_1= 66 I_2= 67 UC= 67	I_1= 59.8y 0%, 100% 34.6kg/m^2 11.1%, 40.9% I_2= 58.5y 0%, 100% 36.2kg/m^2 10.8%, 43.3% UC= 59.2y 0%, 100% 36.5kg/m^2 11.3%. 41.8%	I_1= Lifestyle; clinic-based with diet (reduced fat), PA (30mins/ day) I_2= Lifestyle; clinic and community-based A New Leaf . Choices for Healthy Living with Diabetes for African American Women incorporating social support	I_1= 6m; 4, 3h; NA I_2= 12m; 19, 9.5h; 6m	I_1= Individual I_2= Mixed	I_1= Individual I_2= Mixed	I_1= HCP (RD) I_2= Non-HCP (peer) & HCP (RD)	I_1= Minimal – Content & Delivery I_2= Moderate-to-High – Content & Delivery	I_1= None/NR I_2= Yes
Kim, 2006 Korea	I= 32 UC= 26	I= 55.0±8.1y 19%, NR 25.8±3.8kg/m^2 8.5±1.4%, NR UC= 53.8±9.0y 31%, NR 26.2±4.0kg/m^2 8.6±1.3%, NR	Lifestyle; education and counseling for 5% weight loss including individualized diet and ≥150mins/wk moderate PA	6m; 18, NR; 2m	In-person	Individual	Non-HCP (exercise trainer) & HCP (RN)	Minimal – Content & Delivery	None/NR
Kim, 2009 U.S. (MD, DC)	I= 41 UC= 42	I= 56.2±8.4y 62.5%, 100% 25.9±3.4kg/m^2 9.4±1.5%, NR UC= 56.6±7.6y 48.7%, 100% 25.7±3.1kg/m^2	DSME + Support; community-based SHIP-DM (self-help intervention program for type 2 diabetes management) for Korean American	7m; 12, 13-15h; 5.6m (Plus reminder calls and newsletters)	Mixed	Mixed	Multidisciplinary (RD, RN)	Moderate-to-High - Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		9.1±1.3%, NR	immigrants						
Koo, 2010 Korea	I= 14 AC_1= 19 AC_2= 13 UC= 18	I= 53±8y 0%, NR 29.4 (25.9-37.8) kg/m^2 8.0±1.8%, NR AC_1= 57±8y 0%, NR 27.1 (24.0-31.5) kg/m^2 7.5±1.1%, NR AC_2= 59±4y 0%, NR 25.5 (23.5-34.4) kg/m^2 7.8±1.0%, NR UC= 57±8y 0%, NR 28.5 (24.0-31.5) kg/m^2 7.5±1.1%, NR	I= Lifestyle; diet and PA prescriptions and education AC_1= Diet prescription (1200kcal) with education AC_2= PA prescription (120mins brisk walking /day) with monitoring	I= 3m; 13, NR; NA AC_1= 3m; 7, NR; NA AC_2= 3m; 7, NR, NA	I= In-person AC_1= In-person AC_2= In-person	I= Individual AC_1= Individual AC_2= Individual	I= HCP (exercise therapist) AC_1= NR AC_2= HCP (exercise therapist)	I= Minimal – Content AC_1= Minimal – Content AC_2= None	I= None/NR AC_1= None/NR AC_2= None/NR
Kulzer, 2007 Germany	I_1= 63 I_2= 66 AC= 64	I_1= 56.6±6.7y 53.6%, NR 31.8±3.3kg/m^2 8.2±0.5%, 0% I_2= 55.4±6.5y 51.6%, NR 32.63±4.2kg/m^2	I_1= DSME; empowerment group DSME I_2= DSME; empowerment group & Individual DSME	I_1= 3m; 12, 18h; NA I_2= 3m; 12, 18h; NA AC= 3m; 4, 6h; NA	I_1= In-person I_2= In-person AC= In-person	I_1= Group I_2= Mixed AC= Group	I_1= HCP (Psych) I_2= HCP (Pscyh) AC= HCP (Psych)	I_1= Minimal – Content I_2= Minimal – Content & Delivery AC= None	I_1= None/NR I_2= None/NR AC= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		7.7±0.4%, 0% AC= 55.2±5.6y 45.9%, NR 32.1±3.9kg/m^2 7.6±0.5%, 0%	AC= Non-DSME education in groups						
Lee, 2011 Hong Kong	I= 84 UC= 73	I= NR 39%, NR 25.1 8.18%, NR UC= NR 37%, NR 25.6 8.0%, NR	DSME; self-management training focused on self-efficacy	1.5m; 6, 15h; NA	In-person	Group	HCP (social worker)	Minimal - Content	None/NR
Lorig, 2008 U.S. (CA)	I= 219 UC= 198 Not considering 6-month RCT portion without reinforcement by automated telepho	I= 52.9±13.2y 42.9%, 100% 80.0±18.5kg 7.4±2.0%, 8.7% UC= 52.8±13.4y 32.8%, 100% 77.9±13.4kg 7.4±1.9%, 12.1%	DSME; Spanish Diabetes Self-Management Program (SDSMP) delivered by peers for Spanish-speaking adults	1.5m; 6, 15h; NA	In-person	Group with supports	Non-HCP (Spanish-speaking peer)	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
	ne)								
Lorig, 2009 U.S. (CA)	I= 186 UC= 159	I= 67.7±11.9y 37.6%, 36% 87.0±24.0kg 6.7±1.5%, 17.7% UC= 65.4±11.4y 33.8%, 29.4% 88.9±24.6kg 6.7±1.4%, 17%	DSME; community-based, peer-led DSMP using self-efficacy approach	1.5m; 6, 15h; NA	In-Person	Group with supports	Non-HCP (peers)	Minimal – Content	Yes
Lorig, 2010 U.S. (CA)	I= 491 UC= 270 (Intervention group includes IDSMP with+without listserve reinforcement)	I= 54.2±9.9y 26.3%, 22% NR 6.5±1.2%, NR UC= 54.4±10.6y 28.9%, 28.9% NR 6.4±1.3%, NR	DSME; Internet DSMP with discussion boards and facilitator support	1.5m; 6, NR; NA	Technology	Individual	Non-HCP (peers)	Moderate-to-High – Content & Delivery	Yes
Lujan, 2007 U.S. (TX)	I= 75 UC= 75	I= 57.0±9.8y 19%, 100% NR 8.2±2.2%, 4% UC= 59.6±10.3y 22%, 100%	DSME; culturally specific diabetes intervention delivered by promotores for Mexican Americans	6m; 12, 16h+biweekly telephone support duration; NA (Plus 8 mailed	Mixed	Mixed	Non-HCP (Promotores)	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		NR 7.7±1.5%, 5%		postcards)					
Lynch, 2014 U.S. (IL)	I= 30 AC= 31	I= 53.4±11.4y 40%, 100% 35.3±6.5kg/m^2 7.9±1.6%, 43.3% AC= 54.8±8.5y 25.8%, 100% 35.9±6.3kg/m^2 7.4±1.6%, 41.9%	I= DSME; Lifestyle Improvement Through Food and Exercise (LIFE), CBT-based intervention for African Americans with comorbid diabetes and hypertension plus telephone support calls from peers AC= minimal education classes	I= 6m; 42, 36+telephone support duration; NA AC= 6m; 2, 6h; NA	I= Mixed AC= In-person	I= Mixed AC= Group	I= Non-HCP (African American peers) & HCP (RD) AC= Non-HCP (CHW)	I= Moderate-to-High – Content & Delivery AC= Minimal - Content	I= Yes AC= None/NR
Mandel, 2013 U.S. (OH)	I_1= 64 I_2= 67	I_1= 57.1±9.7y 23.4%, NR 36.8±8.2kg/m^2 7.7±1.8%, NR I_2= 58.0±11.3y 31.3%, NR 34.5±8.5kg/m^2 7.4±1.6%, NR	I_1= DSME I_2= DSME (Music Therapy)	I_1= 1m; 4, 8h; NA I_2= 2m; 8, 14h; NA	I_1= In-person I_2= In-person	I_1= Group I_2= Group	I_1= HCP (CDE or RD) I_2= Multidisciplinary (CDE or RD, music therapist)	I_1= Minimal – Content I_2= Moderate-to-High – Content & Deivery	I_1= None/NR I_2= None/NR
Mayer-Davis, 2004 U.S. (SC)	I_1= 58 I_2= 67 UC= 64	I_1= 58.9±7.8y 15%, 89.4% 37.5±6.7kg/m^2 9.7±3.1%, 42.5%	I_1= Lifestyle; reimbursable intensive lifestyle program tailored to medically underserved	I_1= 12m; 4, 4h; NA I_2= 12m; 26, 26h; 8m	I_1= In-person I_2= In-person	I_1= Mixed I_2= Mixed	I_1= HCP (RD) I_2= HCP (RD)	I_1= Moderate-to-High – Content & Delivery I_2= Moderate-	I_1= None/NR I_2= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		I_2= 59.7±8.6y 22%, 85.7% 37.6±6.5kg/m^2 10.2±2.5%, 51% UC= 62.4±9.5y 21%, 73.2% 35.2±7.5kg/m^2 9.6±2.9%, 41%	I_2= Lifestyle; reimbursable intensive lifestyle program modeled after Diabetes Prevention Program tailored to medically underserved					to-High – Content and Delivery	
McGowan, 2011 Canada	I= 169 AC= 152	I= 55±12y 46%, 22% 80±15kg 6.8±1.2%, NR AC= 59±12y 45%, 18% 83±19kg 7.1±1.5%, NR	I= DSME; 2-day DM education and Stanford Chronic Disease Self-management Program AC= 2-day DM education	I= 1.5m; 8, 27+h; NA AC= 0.06m; 2, 6+h; NA	I= In-person AC= In-person	I= Group AC= Group	I= Non-HCP (lay program leaders) & Multidisciplinary (RN, RD) AC= Multidisciplinary (RN, RD)	I= Minimal – Content & Delivery AC= Minimal – Content	I= Yes AC= None/NR
Miller, 2014 U.S. (OH)	I= 32 AC= 36	I= 54.0±7.0y 36%, 28% 36.2±1.2kg/m^2 8.3±0.3%, 0% AC= 53.9±8.2y 37%, 18.5% 36.2±1.2kg/m^2 8.5±0.2%, 0%	I= DSME; Smart Choices AC= Mindfulness-based Eating Awareness Program with guided meditation	I= 6m; 12, 28h; NA AC= 6m; 12, 28h; NA	I= In-person AC= In-person	I= Group AC= Group	I= HCP (RD) AC= Multidisciplinary (RD, social worker)	I= Minimal – Content & Delivery AC= Minimal – Content & Delivery	I= None/NR AC= None/NR
Moriyama, 2009 Japan	I= 50 UC= 25	I= 66.4±9.2y 40%, NR 60.0±11.0kg	DSME; CBT-based program focused on diet,	12m; 12+24 telephone followups,	Mixed	Individual (Plus family	HCP (RN)	Moderate-to-High – Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		7.5±1.5%, 7% UC= 65.2±8.5y 57%, NR 60.7±11.2kg 7.4±1.7%, 17%	PA and family support	6h+telephone call duration; NA		provided information)			
Muchmore, 1994 U.S. (CA)	I_1= 12 I_2= 11	I_1= 57.3±2.3y 33%, NR 89.5±5kg 10.3±0.3%, 0% I_2= 60.1±2.2y 45%, NR 99±5kg 10.45±.04%, 0%	I_1= Lifestyle; behavioral weight loss program plus basic DM diet education I_2= Lifestyle; behavioral weight loss program plus diet and blood glucose regulation intervention	I_1= 6.5m; 23, 22+; 3.7m I_2= 6.5; 23, 22+; 3.7m	I_1= In-person I_2= In-person	I_1= Mixed I_2= Mixed	I_1= Multidisciplinary (RN, RD) I_2= Multidisciplinary (RN, RD)	I_1= Minimal – Content I_2= Moderate-to-High - Content	I_1= None/NR I_2= None/NR
Murrock, 2009 U.S. (OH)	I= 36 UC= 34	I= 58.5±12.2y 0%, 100% 94.8±26.9kg 7.7±1.2%, 21% UC= 67.1±7.9y 0%, 100% 96.5±20.8kg 7.4±0.1%, 21%	Lifestyle; dance and peer support for African American women	2.8m; 24, 24+social support activity duration; NA	In-person	Group	Non-HCP (African American dance instructor) & HCP (RN)	Moderate-to-High – Content & Delivery	Yes
Nishita, 2013 U.S. (HI)	I= 128 UC= 62	I= 47.6±.09y 34.4%, 68.7% 32.4±0.7kg/m^2	DSME; life coaching and pharmacist	12m; 14.0, 13h; NA	In-person	Individual	Non-HCP (graduates of social sciences	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		7.8±0.2%, NR UC= 50.±1.2y 43.6%, 74.2% 34.2±1.1kg/m^2 7.7±0.2%, NR	counseling using empowerment approach for employed adults	(Plus nutritional counseling as appropriate)			degrees) & HCP (Pharmacist)		
Palmas, 2014 U.S. (NY)	I= 181 Att. C= 179	I= 57.1±7.7y 39.2%, 100% NR 8.8±1.7%, NR Att. C= 58.1±7.8y 37.4%, 100% NR 8.5±1.6%, NR	I= DSME + Support; CHW-led intervention focused on problem solving and negotiating healthcare Att. C= mailed information and 4 telephone contacts	I= 12m; 13, 4.6h; 9m Att. C= 12m; 4+4 mail-outs, 0.7h; NA	I= Mixed Att. C= Technology	I= Mixed Att. C= Individual	I= Non-HCP (CHW) Att. C= Non-HCP (research assistant)	I= Moderate-to-High – Content & Delivery Att. C= None	I= Yes Att. C= None
Philis-Tsimikas, 2011 U.S. (CA)	I= 104 UC= 103	I= 49.2±11.8y 25.2%, 98.1% 32.1±5.9kg/m^2 10.3±1.7%, NR UC= 52.2±9.6y 33.7%, 94.2% 30.9±6.3kg/m^2 10.5±1.7%, NR	I= DSME + Support; Project Dulce, peer-led diabetes education program for high-risk Mexican Americans	10m; 12, 16h; 8m	In-person (Plus telephone reminders)	Group	Non-HCP (Promotores)	Moderate-to-High – Content & Delivery	Yes
Plotnikoff, 2011 Canada	I_1= 49 I_2= 47	I_1= 60 (25-75)y 40%, NR 34.3±5.7kg/m^2 7.8±2.2%, NR	I_1= DSME + Support; I_2= DSME + Support; addition	I_1= 12m; 11, 16.5h+; 11m I_2= 12m; 32, 17.5h+time for	I_1= In-person I_2= Mixed	I_1= Group I_2= Mixed	I_1= HCP (CDE) I_2= Non-HCP (certified personal	I_1= Minimal – Content I_2= Moderate-to-High –	I_1= None/NR I_2= Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		I_2= 60 (25-75)y 40%, NR 34.8±9.0kg/m^2 7.3±1.3%, NR (Mean, Range)	of individualized PA counseling with continual telephone support	telephone counseling; 10m			trainers) & HCP (CDE)	Content & Delivery	
Prezio, 2013 U.S. (TX)	I= 90 UC= 90	I= 47.9±11.0y 33.3%, 77.8% 32.7±7.8kg/m^2 8.9±2.2%, NR UC= 45.7±10.7y 45.6%, 70% 33.9±8.2kg/m^2 8.7±2.3%, NR	DSME + Support; Community Diabetes Education (CoDE) for uninsured Mexican Americans	12m; 7, 7h; 10m	In-person	Individual	Non-HCP (CHW)	Moderate-to-High – Content & Delivery	Yes
Reaney, 2013 Germany & Spain (33 sites)	I= 330 UC= 351	I= 62±9.6y 54.2%, NR 31.2±5.4 7.2 (6.5-8.0)%, 47% UC= 61.9±8.7y 52.4%, NR 31.7±5.9kg/m^2 7.0 (6.4-7.8)%, 41.9% (Mean, IQR)	I= DSME; group DSME using Conversation Maps tools EU version	1.5m; 4, 8-12h; NA	In-person	Group	HCP (trained diabetes educator as per usual care at sites)	Minimal - Content	None/NR
Rickheim, 2002 U.S. (MN)	I_1= 87 I_2= 83	I_1= 51.6±9.2y 35.6%, 3.6% 33.8±6.1kg/m^2	I_1= DSME; group education meeting National	I_1= 6m; 4, 7h; NA I_2= 6m; 4, 5h; NA	I_1= In-person I_2= In-person	I_1= Group I_2= Individual	I_1= Multidisciplinary (RD, RN)	I_1= Minimal – Content	I_1= None/NR I_2=

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		8.9±1.9%, 0% I_2= 52.9±12.8y 32.5%, 10.5% 34.9±6.5kg/m^2 8.0±1.9%, 0%	Standards and informed by an integrated data evaluation system I_2= DSME; individual education meeting National Standards and informed by an integrated data evaluation system				I_2= Multidisciplinary (RD, RN)	I_2= Minimal – Content	None/NR
Ridgeway, 1999 U.S. (TN)	I= 28 UC= 28	I= 62y 33%, NR 88±16kg 12.3±2.2%, 17% UC= 65y 25%, NR 84.8±17kg 12.3±3.0%, 15%	DSME; Life Skills program with behavioral training	12m; 7, 10.5h; NA (Plus telephone reminders)	In-person	Mixed	Multidisciplinary (RD, RN CDEs with some physician contact)	Minimal – Content & Delivery	None/NR
Rock, 2014 U.S. (CA, MN)	I_1= 74 I_2= 77 Att. C= 76	I_1= 55.5±9.2y 52.7%, 20.3% 36.2±4.3kg/m^2 7.4±1.1%, 18% I_2= 57.3±8.6y 52.0%, 18.2% 36.2±4.7kg/m^2	I_1= Lifestyle; weight loss program incorporating low-fat diet with meal replacements I_2= Lifestyle;	I_1 & I_2= 12m; 41, NR; 3m (Plus telephone availability) Att. C= 12m; 2, 2h; NA	I_1 & I_2= In-person (Plus telephone availability but use NR)	I_1 & I_2= Individual Att. C= Individual	I_1 & I_2= Non-HCP (weight loss counselors) Att. C= HCP (RD)	I_1 & I_2= Minimal – Content & Delivery Att. C= None	I_1 & I_2= None/NR Att. C= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		7.3±1.4%, 18% Att. C= 56.8±9.3y 42.1%, 22.4% 36.3±4.4kg/m^2 7.4±1.1%, 18%	weight loss program incorporating low-carbohydrate diet with meal replacements Att. C= two one-to-one weight loss sessions with materials, tracking program and monthly check-in	(Plus monthly telephone check-ins)	Att. C= Individual (Plus telephone check-ins)				
Rosal, 2005 U.S. (MA)	I= 15 UC= 10	I= 62.7±8.1y 20%, 100% 32.4±4.5kg/m^2 7.7±1.2%, 40% UC= 62.4±9.7y 20%, 100% 32.7±7.4kg/m^2 9.3±1.8%, 70%	DSME; community-based, literacy and culturally tailored program for low-income Spanish-speaking individuals of Puerto Rican heritage	3m; 13, 26.5-31.5h; NA	In-person	Mixed	Multidisciplinary (RN, RD)	Moderate-to-High – Content & Delivery	Yes
Rosal, 2011 U.S. (MA)	I= 124 UC= 128	I= 18 - >65y 21.8%, 100% 34.5±6.5kg/m^2 8.9±1.8%, 42.8% UC= 18 - >65y 25%, 100% 34.5±6.5kg/m^2	DSME + Support; Latinos en Control, community-based, culturally tailored self-management intervention for low-income, Spanish-speaking	12m; 21, 51h; 8m (Plus telephone reminders)	In-person	Mixed with supports	Non-HCP (trained lay person) & HCP (RD, health educator)	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		9.1±2.0%, 54.7%	Latinos						
Rothschild, 2014 U.S. (IL)	I= 73 Att. C= 71	I= 53.7±11.7y 35.6%, 100% 32.7±7.4kg/m^2 8.5±2.2%, 19.2% Att. C= 53.6±12.7y 29.6%%, 100% 34.2±9.5kg/m^2 8.1±1.6%, 12.7%	I= DSME + Support; Mexican Americans Trial of Community Health Workers (MATCH) providing in-home self-management training Att. C; 36 mailed bilingual diabetes self-management newsletters	I= 24m; 36, 54h; 12m Att. C = 24m; 36, Oh; NA	I= In-person Att. C= mail only	I= Individual Att. C= NA	I= Non-HCP (CHW) Att. C= NA	I= Moderate-to-High – Content & Delivery Att. C= Minimal - Content	I= Yes Att. C= None/NR
Ruggerio, 2010 U.S. (IL)	I= 25 UC= 25	All participants= 65.8±9.4y 34%, 100% 32.4±6.6kg/m^2 HbA1c: I= 8.5±1.7% UC= 8.9±1.6% Insulin use NR	DSME; Medical assistant self-care coaching intervention using empowerment approach for low-income racial/ethnic minorities	6m; 6, 2h; NA (Plus telephone reminders)	Mixed	Individual	Non-HCP (certified medical assistants)	Moderate-to-High – Content & Delivery	Yes
Ruggerio, 2014 U.S. (IL)	I= 136 UC= 134	I= 53.2±11.7y 32.1%, 100% 33.0±6.4kg/m^2 8.7±2.4%, NR UC= 53.1±13.0y	DSME; Medical assistant self-care coaching intervention using empowerment approach for low-	12m; 12, 4h; NA	Mixed	Individual	Non-HCP (certified medical assistants)	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		30.3%, 100% 33.4±6.4kg/m^2 8.5±2.3%, NR	income racial/ethnic minorities						
Sacco, 2009 U.S. (FL)	I= 31 UC= 31	All participants = 52±8.6y 42%, 22.6% 35.8±7.7kg/m^2 8.5±1.7%, 53%	DSME; brief CBT-based coaching telephone intervention delivered by paraprofessional for T2DM ≥1 cardiovascular risk factors	6m; 16, 6h; NA	Mixed (1 in-person session)	Individual	Non-HCP (undergraduate psychology students)	Minimal – Content & Delivery	None/NR
Salinero-Fort, 2011 Spain	I_1= 304 I_2= 304	I_1= 67.3±19y 51%, NR 30.5±5.2kg/m^2 7.4±1.2%, 14.4% I_2= 66.1±8y 46%, NR 29.6±4.6kg/m^2 7.1±1.3%, 14.2%	I_1= DSME; Conventional Health Promotion Education as per Spanish recommendation I_2 = DSME; PRECEDE model focusing on predisposing, enabling and reinforcing factors for behaviors identified via assessment	I_1= 24m; 10, 6.7h; NA I_2= 24m; 10, 6.7h; NA	I_1= In-person I_2= In-person	I_1= Individual I_2= Individual	I_1= HCP (RN) I_2= HCP (RN)	I_1= Minimal – Content & Delivery I_2= Moderate-to-High – Content & Delivery	I_1= None/NR I_2= None/NR
Samuel-Hodge, 2009 U.S. (NC)	I= 117 UC= 84	I= 57.0y 36%, 100% 34.6kg/m^2 7.7%, 51%	DSME + Support; church-based diabetes self-management	12m; 25, 19h+telephone call time;4m	Mixed	Mixed	Non-HCP (church health advisor) & Multidisciplinary	Moderate-to-High – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		UC= 61.3y 37%, 100% 35.1kg/m^2 7.9%, 38%	program for African Americans				(RD, other HCP)		
Sarkadi, 2004 Sweden	I= 39 UC= 38	I= 66.4±7.9y NR, NR 27.2±3.6kg/m^2 6.5+_0.5%, NR UC= 66.5±10.7y NR, NR 28.6±5.8kg/m^2 6.5±0.5%, NR	DSME; pharmacist-led, experience and empowerment-based group education	12m; 12, NR; NA	In-person	Group	HCP (Pharmacist)	Moderate-to-High - Content	None/NR
Sevick, 2012 U.S. (PA)	I= 147 Att. C= 149	I= 25 - >75y 29.0%, 31.3% 34.0±7.3kg/m^2 7.7±2.2%, NR Att. C= 25 - >75y 34.8%%, 28.8% 35.1±7.7kg/m^2 7.5±1.7%, NR	I=DSME; SCT-based intervention with technology-based self-monitoring of SNBG, diet and PA Att. C= basic group education and mailed magazines; also received meter and pedometer	I= 6m; 14, NR; NA Att. C= 6m; 3, NR:NA	I= In-person Att. C= In-person	I= Group Att. C= Group	I= Multidisciplinary (RD, RN) Att. C= HCP (RN)	I= Moderate-to-High – Content Att. C= None	I= None/NR Att. C= None/NR
Shibayama, 2007 Japan	I= 67 UC= 67	I= 61±8y 65.2%, NR 26±5kg/m^2 7.4±0.7%, 0%	DSME; nurse-led DSME	12m; 12, 5.5h; NA	In-person	Individual	HCP (RN)	Moderate-to-High – Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		UC= 62±7y 65.2%, NR 26±5kg/m^2 7.4±0.7%, 0%							
Sigurdardottir, 2009 Iceland	I= 30 UC= 28	I= 57.8±10.9y 64%, NR 31.5±5.1kg/m^2 8.1±0.9%, 39% UC= 63.5±9.3y 72%, NR 32.7±5.0kg/m^2 7.9±8.9%, 20%	DSME; nurse-led empowerment approach using self-completed instruments on self-care and quality of life	1.5m; 6, 2.3-3.7h; NA	Mixed	Individual	HCP (RN)	Moderate-to-High – Content & Delivery	None/NR
Siminerio, 2013 U.S. (PA)	I_1= 32 I_2= 35 I_3= 36 I_4= 38	I_1= 60±12y 47%, 22% 34.6±6.1 8.7±1.9%, NR I_2= 60±13.4y 40%, 20% 36.2±8.2kg/m^2 9.0±2.1%, NR I_3= 64±10y 47%, 14% 34±8.7kg/m^2 8.6±2.4%, NR I_4= 60±10y 42%, 13% 35.7±8.8kg/m^2	I_1= DSME; empowerment based DSME, PRISM (Program Reinforcement Impacts Self-Management) I_2= DSME + Support; DSMS by practice staff I_3= DSME + Support; DSMS by peer I_4= DSME + Support; DSMS	I_1= 6m; NR, NR; NA I_2= 6m; 1.2+DSME, 0.25h+DSME; 4.5m I_3= 6m; 5.0+DSME, 2.25h+DSME; 4.5m I_4= 6m; 5.1+DSME, 1.5h+DSME; 4.5m	I_1= In-person I_2= Mixed I_3= Mixed I_4= Mixed	I_1= Individual I_2= Individual I_3= Individual I_4= Individual	I_1= HCP (CDE) I_2= Non-HCP (medical assistant or LPN) & HCP (CDE) I_3= Non-HCP (peer) & HCP (CDE) I_4= HCP (CDE)	I_1= Moderate-to-High – Content & Delivery I_2= Moderate-to-High – Content & Delivery I_3= Moderate-to-High – Content & Delivery I_4= Moderate-to-High – Content &	I_1= None/NR I_2= None/NR I_3= Yes I_4= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		8.3±1.8%, NR	support by educator					Delivery	
Sinclair, 2013 U.S. (HI)	I= 48 UC= 34	I= 53±12y 37%, 100% 36±12kg/m^2 9.9±2.0%, 56% UC= 55±10y 38%, 100% 38±8kg/m^2 9.8±2.2%, 46%	DSME; Partners in Care; community-based, culturally adapted CBT-based DSME delivered by peers for Hawi'i Natives and Pacific Islanders	3m; 12, 12h; NA	In-person	Group	Non-HCP (peer)	Moderate-to-High – Content & Delivery	Yes
Sixta, 2008 U.S. (TX)	I= 68 UC= 63	I= 54.5 (30-77)y 29%, 100% NR 7.32%, NR UC= 52.8 (26-81)y 29%, 100% NR 7.65%, NR (Mean, Range)	DSME; promotores-led culturally sensitive DSME for underserved Hispanic Americans	2.3m; 10, 15h; NA	In-person	Group	Non-HCP (Promotores)	Moderate-to-High – Content & Delivery	Yes

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Skelly, 2005 U.S. (NC)	I= 23 UC= 18 (Analyzed)	I= 60.5±9.0y 0%, 100% NR 9.2±2.5%, 26.1% UC= 63.7±10.8y 0%, 100% NR 9.0±2.8%, 16.7%	DSME; symptom-focused teaching and counseling intervention for rural older African American women	2m; 4, 4h; NA	In-person	Individual	HCP (RN)	Moderate-to-High – Content & Delivery	None/NR
Skelly, 2009 U.S. (NC)	I_1= 60 I_2= 60 AC= 60	I_1= 65y (Median) 0%, 100% NR 8.3±1.6%, 18% I_2= 68.5y (Median) 0%, 100% NR 8.4±1.6%, 17% AC= 68y (Median) 0%, 100% NR 8.1±1.6%, 17%	I_1= DSME; symptom-focused teaching and counseling intervention for rural older African American women I_2= DSME + Support; symptom-focused teaching and counseling intervention for rural older African American women with telephone booster sessions AC= skills-based weight	I_1= 2.8m; 4, 4h; NA I_2= 8.6m; 8, 5h; 5.8m AC= 2.8m; 4, 4h; NA	I_1= In-person I_2= Mixed AC= In-person	I_1= Individual with family I_2= Individual with family AC= Individual	I_1= HCP (RN) I_2= HCP (RN) AC= HCP (RN)	I_1= Moderate-to-High – Content & Delivery I_2= Moderate-to-High – Content & Delivery AC= Minimal – Content & Delivery	I_1= None/NR I_2= None/NR AC= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
			management program focused on diet education						
Smith, 1997 U.S. (AL)	I_1= 10 I_2= 6 (Analyzed)	All participants: 62.4±7.0y 100%, 41% 34.7±4.9kg/m^2 10.25±2.2%, 0%	I_1= Lifestyle; behavioral weight-control program for older obese women I_2= Lifestyle; behavioral weight-control program for older obese women with MI	I_1= 4m; 16, NR; NA I_2= 4m; 19, NR; NA	I_1= In-person I_2= In-person	I_1= Group I_2= Mixed	I_1= Multidisciplinary (RD, Psych, exercise physiologist) I_2= Multidisciplinary (RD, Psych, exercise physiologist) – Psych for MI	I_1= Minimal – Content I_2= Moderate-to-High – Content & Delivery	I_1= None/NR I_2= None/NR
Spencer, 2011 U.S. (MI)	I= 84 UC= 84	I= 50 (47, 52)y 25%, 100% 34 (32, 36)kg/m^2 8.6 (8.0, 9.1)%, 27% UC= 55 (53, 57)y 33%, 100% 35 (33, 37)kg/m^2 8.5 (8.0, 8.9)%, 29% (95% CI)	DSME; culturally tailored, behavioral theory-based CHW intervention for African Americans and Latinos	6m; 14 & biweekly telephone calls, 24h plus telephone contact time; NA	Mixed	Mixed	Non-HCP (CHW)	Moderate-to-High – Content & Delivery	Yes
Sperl-Hillen,	I_1= 246	I_1= 61.6±10.9y	I_1= DSME;	I_1= 3m; 3, 3h; NA	I_1= In-person	I_1= Individual	I_1= HCP (RN or	I_1= Minimal –	I_1=

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
2013 U.S. (NM, MN)	I_2= 243 UC= 134	50.4%, 37.3% 34.4±8.0 kg/m^2 8.1%, NR I_2= 61.2±11.8y 49%, 33.5% 34.4±7.0 kg/m^2 8.1%, NR UC= 63.3±1.5y 53.7%, 32.6 34.7±7.7 kg/m^2 8.0%, NR	individual DSME I_2= DSME; group DSME using U.S. Conversation Maps	I_2= 2.5m; 4, 8h; NA	I_2= In-person	I_2= Group with supports	RD CDE) I_2= HCP (RN or RD CDE)	Content I_2= Moderate-to-High – Content & Delivery	None/NR I_2= None/NR
Steed, 2005 United Kingdom	I= 65 UC= 59	I= 59.2±8.8y 67.7%, 47.7% NR 8.2±1.3%, NR UC= 60.3±8.6y 74.6%, 56.2% NR 8.6±1.8%, NR	DSME; University College London diabetes self-management programme (UCL-DSMP)	3m; 6, 15h; NA	In-person	Group	HCP (DSN)	Minimal - Content	None/NR
Sung, 2012 Korea	I= 22 UC= 18	I= 70.2±4.7y 31.8%, NR 23.9kg/m^2 7.6±1.1%, 31.8% UC= 70.1±3.6y 38.9%, NR 25.5kg/m^2 7.6±1.4%,	Lifestyle; Supervised walking program with basic education for the elderly	6m; 34, 24h; NA	In-person	Mixed	NR	Moderate-to-High – Content	None/NR

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		44.4%							
Tang, 2014 U.S. (MI)	I_1= 56 I_2= 60	I_1= 48.4±10.0y 35.7%, 100% 32.0±4.6kg/m^2 7.8±1.7%, 25% I_2= 50.2±11.2y 46.7%, 100% 33.0+/-7.6kg/m^2 8.2±2.2%, 20%	I_1= DSME + Support; CHW-led Partners in Care & DSMS led by CHWs for Latinos I_2= DSME + Support; CHW-led Partners in Care & DSMS led by peer leaders for Latinos	I_1= 18m; 16.9, 25.5h; 12m I_2= 18m; 17.7, 26h; 12m (Per protocol had many more contacts in DSMS phase)	I_1= Mixed I_2= Mixed	I_1= Mixed with supports I_2= Mixed with supports	I_1= Non-HCP (CHW) I_2= Non-HCP (CHW & peers)	I_1= Moderate-to-High – Content & Delivery I_2= Moderate-to-High – Content & Delivery	I_1= Yes I_2= Yes
Thoolen, 2007 The Netherlands	I= 89 UC= 108	I= 62.0±4.9y 64%, NR NR NR, NR UC= 61.9±5.6y 55%, NR NR NR, NR	DSME; Beyond Good Intentions, focused on coping and self-regulation around diet, exercise and medications	3m; 6, 10h; NA	In-person	Mixed	HCP (RN)	Minimal – Content & Delivery	None/NR
Toobert, 2003 U.S. (OR)	I= 163 UC= 116	I= 61.6±8.0y 0%, 8% 35.1±7.75kg/m^2 7.4±1.3%, 20.4% UC= 60.7±7.8y 0%, 5.3% 35.6±8.85kg/m^2	Lifestyle; Mediterranean Lifestyle Program (multicomponent program focusing on reduction of behavioral CHD risk factors of diet, PA, social	6m; 29, 124h; NA	In-person (telephone followup for missed sessions)	Group	Non-HCP (>75%; lay leaders & RAs) & Multidisciplinary (RD, Exercise physiologist)	Minimal – Content & Delivery	Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		7.4±1.5%, 21.6%	support, stress management and smoking cessation)						
Toobert, 2011	I= 142 UC= 138	I= 55.6±9.7y 0%, 100% 35.3±7.05kg/m^2 8.4±1.9%, 29.1% UC= 58.7±10.3y 0%, 100% 33.2±6.75kg/m^2 8.2±1.7%, 32.1%	Lifestyle; Viva Bien (adaptation of Mediterranean Lifestyle Program for Latinos)	24m; 52, 208h; 18m	In-person	Group with supports during maintenance phase	Non-HCP (>75% trained bilingual facilitators) & Multidisciplinary (RD, Physician)	Moderate-to-High – Content & Delivery	Yes
Trief, 2011 U.S. (NY)	I_1= 12 I_2= 12 UC= 13 (Analyzed)	I_1= 61.1±9.3y 50%, NR 33.0±5.4kg/m^2 8.1±1.2%, NR I_2= 60.3±8.6y 41.7%, NR 35.3±7.3kg/m^2 8.4±1.4%, NR UC= 61.1±11.1y 38.5%, NR 35.1±7.2kg/m^2 8.2±1.1%, NR	I_1= DSME; problem-solving approach delivered via telephone to individuals I_2= DSME; problem-solving approach delivered via telephone for couples	I_1= 3m; 9, NR; NA I_2= 3m; 9, NR; NA	I_1= Technology I_2= Technology	I_1= Individual I_2= Individual with spouse	I_1= HCP (CDE) I_2= Multidisciplinary (CDE, therapist)	I_1= Moderate-to-High – Content & Delivery I_2= Moderate-to-High – Content & Delivery	I_1= None/NR I_2= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Tucker, 2014 U.S. (FL)	I= 64 UC=	I= NR 27%, 70% 36.1(SE0.3)kg/m^2 NR, NR UC= NR 25%, 77% 36.2(SE0.3)kg/m^2 NR, NR	DSME; culturally sensitive, empowerment-focused, community-based health promotion program provided to racial/ethnic minorities	2m; 4, 12h+ telephone contact time; NA	Mixed	Mixed	Non-HCP (community leaders) & Multidisciplinary (RN, RD, Psych)	Moderate-to-High – Content & Delivery	Yes
Utz, 2008 U.S. (VA)	I_1= 8 I_2= 13	I_1= 56.6±14.7y 37.5%, 100% NR 8.1±1.6%, 25% I_2= 62.4±14.7y 23.1, 100% NR 8.1±1.4%, 46.2%	I_1= DSME; Individual DSME I_2= DSME; group-based, culturally tailored DSME for rural African Americans	I_1= 2m; 3, 1h; NA I_2= 2m; 8, 16h; NA	I_1= In-person I_2= In-person	I_1= Individual I_2= Group	I_1= HCP (CDE) I_2= HCP (CDE)	I_1= Minimal – Content I_2= Moderate-to-High – Content & Delivery	I_1= Yes I_2= Yes
Vadstrup, 2011 Denmark	I_1= 73 I_2= 70	I_1= 58.0±10.3y 60%, NR 98.2 +/- 24.8kg 7.8±0.9%, 14% I_2= 58.5±10.3y 59%, NR 96.2 +/- 15.2kg 7.9±0.8%, 19%	I_1= DSME; individualized counseling program with MI I_2= DSME; group-based rehabilitation program using an empowerment approach &	I_1= 6m; 8, 6.75h; NA I_2= 6m; 33, 53h; NA	I_1= In-person I_2= In-person	I_1= Individual I_2= Group with some spouse involvement	I_1= Multidisciplinary (RN, RD, Podiatrist) I_2= Multidisciplinary (RN, RD, Podiatrist, Physiotherapist)	I_1= Moderate-to-High – Content & Delivery I_2= Minimal - Content	I_1= None/NR I_2= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
			supervised group aerobic exercise and resistance training						
Vazquez, 1998 U.S. (MA)	I= 18 UC= 20	All participants 32-70y 55%, 100% 27-40kg/m^2 NR, NR	DSME; Buena Alimentacion, Buena Salud (Good Eating, Good Health) for Caribbean Latinos	3m; 12, NR; NA	In-person	Group	Multidisciplinary (RD, Psych)	Moderate-to-High –Content & Delivery	Yes
Vincent, 2007 U.S. (AZ)	I= 10 UC= 10	I= 56.7±10.6y 11%, 100% 30.6±2.7kg/m^2 6.6±1.2%, NR UC= 55.3±8.2y 50%, 100% 29.8±4.2kg/m^2 6.7±1.2%, NR	DSME; culturally tailored for Mexican Americans	2m; 8, 16h; NA (Plus telephone reminders)	In-person (with telephone reminders)	Group with supports	Non-HCP (Promotores) & HCP (not specified)	Moderate-to-High – Content & Delivery	Yes
Walker, 2011 U.S. (NY)	I= 262 UC= 265	I= 55.7±7.4y 31.7%, 94.3% 31.8±6.2kg/m^2 8.6 (8.0-9.6)%, 21% UC= 55.4±7.2y 34.1%, 93.9% 30.7±6.0kg/m^2 8.7 (8.0, 10.2)%, 25% (Mean, IQR)	DSME; telephonic intervention focused on medication adherence and lifestyle behaviors with socio-ecological approach for low-income, insured urban diabetics	12m; 7.9±2.1, 2h; NA	Technology	Individual	Non-HCP (health educators)	Moderate-to-High - Delivery	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Weinger, 2011 U.S. (MA) both T1DM & T2DM 50:50%	I=74 AC_1= 75 AC_2= 73	I= 51.8 (23.7-74.2)y 54%, 12% 29.4 (18.6-51.5)kg/m^2 9.0 (7.6-12.6)%, 55.3% AC_1= 54.7 (25.0-75.1)y 52%, 11% 29.4 (20.3-57.8) kg/m^2 8.8 (7.6-13.6)%, 55.3% AC_2= 56.2 (21.6-74.8)y 42%, 15% 29.0 (17.8-50.4) kg/m^2 8.6 (7.6-13.1)%, 55.3% (Median, Range)	I= DSME; CBT-based group education program AC_1= Non-DSME (didactic group sessions) AC_2= Non-DSME (individual RN & RD consults offered)	I= 1.5m; 5, 10h; NA AC_1= 1.5; 5, 10h; NA AC_2= 6m; NR, NR; NA	I= In-person AC_1= In-person AC_2= In-person	I= Group AC_1= Group AC_2= Individual	I= Multidisciplinary (RN, RD) AC_1= RN AC_2= Multidisciplinary (RN, RD)	I= Minimal – Content AC_1= Minimal – Content AC_2= Minimal – Content & Delivery	I= None/NR AC_1= None/NR AC_2= None/NR
Welch, 2011 U.S. (MA)	I_1=58 I_2=57 Only 2 of 4 arms – not	I_1= 54.4±10.3y 37.9%, 21% 34.9±6.7kg/m^2 8.8±1.3%, 40.4%	I_1= DSME; standard I_2= DSME; standard with MI counseling and	I_1= 6m; 4, 2.5h; NA I_2= 6m; 4, 2.5h; NA	I_1= In-person I_2= In-person	I_1= Individual I_2= Individual	I_1= HCP (CDE) I_2= HCP (CDE)	I_1= Minimal – Content & Delivery I_2= Moderate-to-High –	I_1= None/NR I_2= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
	reporting on arms adding computer summary of barriers)	I_2= 54.9±9.3y 42.1%, 14% 34.1±5.6kg/m^2 9.1±1.5%, 31.6%	tools by CDEs					Content & Delivery	
Welschen, 2013 Netherlands	I= 78 UC= 76	I= 60.5±9.4y 59.5%, 2.7% 31.6±5.7kg/m^2 6.8±1.0, NR UC= 61.2±8.8y 64.2%, 5.1% 31.5±5.2kg/m^2 6.8±1.0%, NR	Lifestyle; CBT-based intervention with problem-solving training for diet, PA, smoking cessation	6m; 3±1.7, 1.5h; NA	In-person	Individual	Multidisciplinary (RN, RD)	Moderate-to-High- Content & Delivery	None/NR
West, 2007 U.S. (AL)	I_1= 108 I_2= 109	I_1= 52±10y 0%, 38% 36.5±5.4kg/m^2 7.6±1.4%, 0% I_2= 54±10y 0%, 39% 36.5±5.5kg/m^2 7.5±1.4%, 0%	I_1= Lifestyle; behavioral weight control program I_2= Lifestyle: behavioral weight control program + MI	I_1= 18m; 47, NR; 12m I_2= 18m; 47, NR; 12m	I_1= In-person I_2= In-person	I_1= Mixed I_2= Mixed	I_1= Multidisciplinary (RD, CDE, behaviorist, exercise physiologist) I_2= Multidisciplinary (RD, CDE, behaviorist, exercise physiologist , psychologist)	I_1= Minimal – Content I_2= Moderate-to-High – Content & Delivery	I_1= None/NR I_2= None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
Wierenga, 1994 U.S. (WI)	I= 35 UC= 31	I= 30-86y NR, 6.1% 28.7±6.9kg/m^2 NR, NR UC=30-86y NR, 6.1% 28.7±6.9kg/m^2 NR, NR (All except BMI for all participants)	Lifestyle; behavioral modification program to promote gradual change	1.25m; 5, 7.5h; NA	In-person	Group	HCP (RN)	Minimal – Content	None/NR
Wing & LookAhead Study Group, 2013 U.S. (16 Sites)	I= 2570 AC= 2575	I= 58.6±6.8y 40.6%, 36.9% 35.3±5.7kg/m^2 (Male), 36.3±6.2 kg/m^2 (Female) 7.2±1.1%, 15.5% AC= 58.9±6.9y 40.3%, 36.7% 35.1± 5.2kg/m^2 (Male), 36.6± 6.0kg/m^2 (Female) 7.3±1.2%, 16.5%	I= Lifestyle; 3-phase intense lifestyle intervention for sustained weight loss including group and individual contacts, supportive sessions, and behavioral training AC= Non-DSME; diabetes support and education	I= 96+m; 202+, 86+h; 84m AC= 96+m; 16+, NR; 48+m	I= Mixed AC= In-person	I= Mixed AC= Group	I= Non-HCP (RA) & HCP (lifestyle counselors of various disciplines) AC= HCP (educator with background in DM education, exercise or nutiriton)	I= Moderate-to-High – Content & Deli very AC= Minimal – Content & Delivery	I= None/NR AC= None/NR
Wolever, 2010 U.S. (NC)	I= 30 UC= 26	I= 53.1±8.3y 27%, 66% NR	DSME; integrative health coaching using Wheel of	6m; 14, 7h	Technology	Individual	Non-HCP (trainees in social work or	Moderate-to-High - Content & Delivery	None/NR

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		7.7±1.9%, NR UC= 52.8±7.6y 19%, 54% NR 8.2±1.9%, NR	Health				psychology)		
Wolf, 2004 U.S. (VA)	I= 74 UC= 73	I= 53.5±8.6y 38%, 15% 37.6±7.7kg/m^2 7.9±1.6%, 26% UC= 53.4±8.0y 42%, 26% 37.5±6.4kg/m^2 7.5 ±1.5%, 22%	Lifestyle; Dietician-led lifestyle case management with structured medical nutrition therapy and basic education on diet and PA	12M; 12 + monthly telephone contacts, 10h + monthly telephone support	Mixed	Group	HCP (RD)	Minimal – Content and Delivery	None/NR
Yoo, 2007 Korea	I= 30 UC= 30	I= 55.3±7.6y 32%, NR 26.1±4.1kg/m^2 8.7±1.3%, 0% UC= 55.3±7.6y 35%, NR 26.1±4.1kg/m^2 8.7±1.3%, 0%	Lifestyle; lifestyle modification program using self-efficacy approach with stress management training	13m; 25, 25h; 9m	In-person	Group	HCP (RN)	Minimal-Content	None/NR
Zgibor, 2014	I_1= 102 I_2= 119	I_1= 64.5y 33.3%, 3.9% 34.3kg/m^2 7.4%, 35.0% I_2= 61.7y 38.7%, 2.5% 35.3kg/m^2	I_1= DSME + Support; traditional DSME and support by CDE I_2= DSME + Support; DSME	I_1= 13.5m; 16, NR; 12m I_2= 13.5m; 16, NR; 12m	I_1= Mixed I_2= Mixed	I_1= Mixed I_2= Mixed	I_1= HCP (RN CDE) I_2= Non-HCP (peer) & HCP (RN CDE)	I_1= Minimal - Content & Delivery I_2= Moderate-to-High - Content & Delivery	I_1= None/NR I_2= Yes

Author, Year & Country	Comparison & Sample Size (Number randomized unless NR then # analyzed)	Age, Male, Non-White, BMI/KG, HbA1c, Insulin Treatment	Intervention Category & Description	Total Duration Including all Phases (m); Intensity (# contacts, total contact time); Maintenance/Support Phase Duration	Method of Communication (In-person, Mixed, Technology)	Method of Delivery (Individual, Group, Mixed) & Presence of Supports	Delivery Personnel (Non-HCP, Single HCP, Multidisciplinary)	Degree of Tailoring	Community Engagement
		7.6%, 30.0%	and support with peer leader						

AC=active control; Att. C=attention control; CDE=certified diabetes educator; CHW=Community health worker; DSME=diabetes self-management education; DSN=diabetes specialist nurse; EU=European Union; GP=general practitioner; h=hour; HCP=health care professional; I=intervention (behavioral program); LPN=Licensed practical nurse; m=month; NA=not applicable; NP=Nurse practitioner; NR=not reported; PA = physical activity; Psych=Psychologist; RD=registered dietitian; RN-registered nurse; SE=standard error; UC=usual care

Appendix G. Type 1 Diabetes Mellitus: Summary of Results from Observational Studies

Study, year (# subjects)	Outcome	Timepoint	Results	Conclusion
Thomas-Dobersen, 1993 (20 youth)	HbA1c	EOI	MD, -0.50; 95% CI -1.84 to 0.84	No difference
Thomas-Dobersen, 1993 (20 youth)	HbA1c	12m followup	MD, 0.67; 95% CI -1.47 to 2.81	No difference
Thomas-Dobersen, 1993 (20 youth)	Depression	EOI	SMD, -.43; 95% CI -0.84 to 0.75	No difference
Thomas-Dobersen, 1993 (20 youth)	Depression	12m followup	SMD, 0.05; 95% CI -0.86 to 0.96	No difference
Thomas-Dobersen, 1993 (20 youth)	BMI	EOI	MD, 0.29; 95% CI -1.06 to 0.48	No difference
Thomas-Dobersen, 1993 (20 youth)		12m followup	MD, -0.27; 95% CI -1.87 to 1.36	No difference
Thomas-Dobersen, 1993 (20 youth)	Weight	EOI	MD, -1.13; 95% CI -2.72 to 0.46	No difference
Thomas-Dobersen, 1993 (20 youth)		12m followup	MD, -0.40; 95% CI -4.54 to 3.74	No difference
Thomas-Dobersen, 1993 (20 youth)	Participant attrition	12m	RR, 1.64; 95% CI 0.16, 2.46	Increased risk of attrition for those receiving usual care
Viner, 2003 (41 youth)	HbA1c	12m followup	MD, -1.20; 95% CI -2.24 to -0.16	Improved for those receiving behavioral program
Forlani, 2006 (90 adults)	HbA1c	12m followup	MD, -0.70; 95% CI -1.31 to -0.09	Improved for those receiving behavioral program
Forlani, 2006 (90 adults)	QOL	12m followup	SMD, 0.31; 95% CI -0.11 to 0.74	No difference
Forlani, 2006 (90 adults)	QOL-diabetes specific	12m followup	SMD, 0.03; 95% CI -0.39 to 0.45	No difference

BMI = body mass index; EOI = end of intervention; m = month; MD = mean difference; QOL = quality of life; RR = risk ratio; SMD = standardized mean difference

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Appendix H. Strength of Evidence Tables for T1DM

Table H1. Behavioral programs compared with usual care: Strength of evidence

Table H2. Behavioral programs compared with an active controls: Strength of evidence

Table H1. Behavioral programs compared with usual care: Strength of evidence

Outcome	# trials (# Subjects); Tool if applicable	Risk of Bias	Consistency	Directness	Precision	Reporting bias	Findings and Direction of Effects	Strength of Evidence
HbA_{1c} (EOI)	15 (1,097)[1-15]	Medium	Consistent	Direct	Imprecise	Un-suspected	MD, -0.11; 95% CI -0.35 to 0.13	Low
HbA_{1c} (6m)	11 (1,316) [3, 5, 6, 15-22]	Medium	Consistent	Direct	Precise	Un-suspected	MD, -0.33; 95% CI -0.51 to -0.15 Favors behavioral programs	Moderate
HbA_{1c} (12m)	6 (1,186) [2, 15, 19-21, 23]	Medium	Consistent	Direct	Imprecise	Un-suspected	MD, -0.21; 95% CI -0.54 to 0.12	Low
HbA_{1c} (>12m)	4 (1,138)[6, 20, 21, 23]	Medium	Consistent	Direct	Imprecise	Un-suspected	MD, -0.40; 95% CI -0.92 to 0.12 (>12m, <24m) MD, -0.08; 95% CI -1.96 to 1.8 (≥24m)	Low
Adherence to diabetes self-management (EOI)	4 (282);[3, 5, 8, 17] SMBG 1(74);[1] SDSCA 1 (54);[15] DSMP	High	Consistent	Direct	Imprecise	Un-suspected	MD, 0.15; 95% CI -0.54 to 0.84 MD, 1.4 days; 95% CI 0.35 to 2.43 MD, 5.00; 95% CI 0.60 to 9.40	Low
Adherence to diabetes self-management (6m)	5 (252);[3, 5, 16, 17, 22] SMBG 1 (244);[6] SDSCA 2 (471);[20, 21] DSMP	High	Consistent	Direct	Imprecise	Un-suspected	MD, 0.40; 95% CI -0.36 to 1.16 MD, -0.06; 95% CI -0.60 to 0.48 No difference (different summary measures)	Low
Adherence to diabetes self-management (12m)	1 (54);[15] DSMP 1 (180);[23] skipping one or more doses in past month	High	Consistent	Direct	Imprecise	Un-suspected	MD, 4.00; 95% CI -1.69 to 9.69 OR, 0.82; 95% CI, 0.48 to 1.38	Insufficient
Adherence to diabetes self-management (≥12m)	1 (390); SMBG 1 (190);[23] skipping one or more doses in past month	High	Inconsistent	Direct	Imprecise	Un-suspected	MD, -0.36; 95% CI -0.69 to -0.03 (≥24m) OR, 1.30; 95% CI, 0.78 to 2.17 (24m)	Insufficient
Change in body composition (BMI) (EOI)(6m)	1 (60)[4]	Medium	Unknown	Direct	Precise	Un-suspected	MD, 0.08; 95% CI, -0.35 to 0.51	Insufficient
Change in body composition (BMI)	1 (227)[6]	High	Unknown	Direct	Precise	Un-suspected	MD, -0.21; 95% CI, -0.62 to 0.20	Insufficient
Change in body composition (kg)	1 (61)[13]	High	Unknown	Direct	Imprecise	Un-suspected	MD, -0.50; 95% CI, -5.69 to 4.69	Insufficient
Change in	1 (43)[13]	High	Unknown	Direct	Precise	Un-	MD, 0.59; 95% CI 0.22 to 0.96	Insufficient

Outcome	# trials (# Subjects); Tool if applicable	Risk of Bias	Consistency	Directness	Precision	Reporting bias	Findings and Direction of Effects	Strength of Evidence
physical activity (fitness–VO_2 max) (EOI)						suspected	Favors behavioral programs	
Change in physical activity (intensity/ duration) (EOI)	2 (91)[1, 3]	High	Consistent	Direct	Imprecise	Un-suspected	SMD, 0.16; 95% CI -0.25 to 0.57	Insufficient
Change in physical activity (intensity/ duration) (6m)	2 (272)[3, 6]	High	Inconsistent	Direct	Imprecise	Un-suspected	SMD, -0.26; 95% CI -1.0 to 0.49	Insufficient
Change in nutrient intake (kcal/day) (EOI)	1 (61)[13]	High	Unknown	Direct	Precise	Un-suspected	MD, -247.10; 95% CI -281.7 to -212.5 Favors behavioral programs	Insufficient
Change in nutrient intake (saturated fat) (EOI)	1 (61)[13]	High	Unknown	Direct	Precise	Un-suspected	MD, -1.80; 95% CI -3.53 to -0.07; favors behavioral programs	Insufficient
Generic HRQL (EOI)	6 (419)[1, 5, 7-9, 24]	High	Consistent	Direct	Imprecise	Un-suspected	SMD, 0.15; 95% CI -0.13 to 0.45	Low
Generic HRQL (6m)	1 (53)[5]	High	Unknown	Direct	Imprecise	Un-suspected	SMD, -0.29; 95% CI -0.83 to 0.26	Insufficient
Generic HRQL (12m)	2 (405)[9, 23]	High	Unknown	Direct	Precise	Un-suspected	SMD, 0.02; 95% CI -0.11 to 0.15	Insufficient
Generic HRQL (≥12m)	1 (291)[23]	High	Unknown	Direct	Imprecise	Un-suspected	SMD, -0.04; 95% CI -0.27 to 0.19	Insufficient
Diabetes-specific quality of life	1 (26)[24]	High	Unknown	Direct	Precise	Un-suspected	SMD, -0.77; 95% CI, -1.57 to 0.04	Insufficient
Diabetes-specific quality of life	1 (131)[11]	High	Unknown	Direct	Precise	Un-suspected	SMD, 0.44; 95% CI, 0.08 to 0.81	Insufficient

Note: Only clinical trials were included in strength of evidence assessments.
CI = confidence interval; DSMP = Diabetes Self-Management Profile; EOI = end of intervention; HRQL = health-related quality of life; M = month; SDSCA = Summary of Diabetes Self-Care Activities; SMBG = self-monitoring of blood glucose

Table H2. Behavioral programs compared with an active control: Strength of evidence

Outcome	# trials (# Subjects); Tool if applicable	Risk of Bias	Consistency	Directness	Precision	Reporting bias	Findings and Direction of Effects	Strength of Evidence
HbA_{1c} (EOI)	4 (566) [15, 25-27]	Medium	Consistent	Direct	Imprecise	Un-suspected	MD, -0.32; 95% CI -0.78 to 0.14	Low
HbA_{1c} (6m)	4 (504)[15, 26-28]	Medium	Consistent	Direct	Precise	Un-suspected	MD, -0.43; 95% CI -0.62 to -0.24 Favors behavioral programs	Moderate
HbA_{1c} (12m)	3 (342)[15, 26, 27]	Medium	Consistent	Direct	Imprecise	Un-suspected	MD, -0.34; 95% CI -0.71 to 0.03	Low
Adherence to diabetes self-management (EOI)	1 (54);[15] DSMP 1 (149);[26] DBRS	High	Inconsistent	Direct	Imprecise	Un-suspected	MD, 2.40; 95% CI -2.46 to 7.26 No data reported; those in behavioral program did more poorly	Insufficient
Adherence to diabetes self-management (6m)	1 (149);[28] SMBG 1 (149);[26] DBRS	High	Inconsistent	Direct	Imprecise	Un-suspected	MD, -0.20; 95% CI -0.76 to 0.36 No data reported; those in behavioral program did more poorly	Insufficient
Adherence to diabetes self-management (12m)	1 (54);[15] DSMP 1 (149);[26] DBRS	High	Inconsistent	Direct	Imprecise	Un-suspected	MD, 2.00; 95% CI -3.78 to 7.78 No data reported; those in behavioral program did more poorly	Insufficient

Note: Only clinical trials were included in strength of evidence assessments.
CI = confidence interval; DBRS = Diabetes Behavior Rating Scale; DSMP = Diabetes Self-Management Profile; EOI = end of intervention; M = month; SDSCA = Summary of Diabetes Self-Care Activities; SMBG = self-monitoring of blood glucose

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Appendix I: Effectiveness Across Outcomes for T2DM

Table I1. Effectiveness of behavioral programs compared with usual care for T2DM

Table I2. Effectiveness of behavioral programs compared with active control for T2DM

Table I3. Comparative effectiveness of behavioral programs for T2DM

Notes: Bold text represents statistically significant findings.

Table I1. Effectiveness of behavioral programs compared with usual care for type 2 diabetes

Category	Outcomes	Timepoint					
		EOI		6m		12m	
		# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect
Clinical Outcomes	Glycemic Control (HbA_{1c})	59 (7,867)[1-56]	**MD, -0.34; 95% CI -0.47 to -0.21; I^2=73%**	22 (4,044)[14, 33, 45, 51, 53, 57-71]	**MD, -0.16; 95% CI -0.3 to -0.02; I^2=62%**	9 (1,494)[14, 40, 60-62, 64, 71, 72]	MD, -0.14; 95% CI -0.4 to 0.12; I^2=59%
	Change in Body Composition (BMI)	32 (4,001)[1-3, 6, 8-10, 12, 13, 15, 18, 19, 21, 22, 27, 29, 30, 32, 33, 41, 43, 47, 49-51, 53, 56, 70, 73, 74]	**MD, -0.47; 95% CI -0.74 to -0.2; I^2=50%**	13 (1,746)[33, 51, 53, 57, 59-61, 63, 64, 68, 70, 74]	**MD, -0.22; 95% CI -0.34 to -0.1; I^2=0%**	5 (867)[60, 61, 64, 75, 76]	**MD, -0.92; 95% CI -1.44 to -0.4; I^2=0%**
	Weight (kg)	30 (3,206)[2, 4, 6, 7, 9, 11, 17, 19, 20, 22, 23, 25, 26, 31, 32, 35, 39, 41-43, 49, 53, 55, 62, 70, 77, 78]	**MD, -1.88; 95% CI -2.41 to -1.35; I^2=48%**	7 (1,620)[53, 61, 67, 70, 71, 77]	MD, -0.17; 95% CI -0.52 to 0.18; I^2=0%	1 (291)[61]	MD, -1.60; 95% CI -5.41 to 2.21; I^2=NA
	Change in Body Composition (% body fat)	1 (38)[26]	MD, -3.60; 95% CI -7.76 to 0.56; I^2=NA	NA	NA	NA	NA
	Change in Body Composition (waist circumference [cm])	15 (1,392)[6, 9, 12, 22, 25, 32, 33, 41, 43, 51, 55, 56, 77]	**MD, -3.11; 95% CI -4.46 to -1.76; I^2=66%**	5 (596)[33, 51, 61, 77]	MD, -1.39; 95% CI -4.8 to 2.02; I^2=28%	2 (385)[61, 75]	MD, -2.92; 95% CI -11.3 to 5.46; I^2=0%
	Total Cholesterol (mmol/l)	24 (2,416)[2, 6-9, 16-18, 20-22, 25, 29, 31-33, 42, 48, 49, 51, 55]	**MD, -0.11; 95% CI -0.18 to -0.04; I^2=0%**	6 (592)[33, 51, 53, 59, 61]	**MD, -0.25; 95% CI -0.44 to -0.06; I^2=0%**	1 (291)[61]	MD, -0.10; 95% CI -0.34 to 0.14; I^2=NA
	HDL Cholesterol (mmol/l)	22 (2,516)[1, 2, 6, 7, 9, 16-18, 20-22, 29-33, 41, 48, 49, 55]	**MD, 0.02; 95% CI 0 to 0.04; I^2=0%**	3 (469)[33, 53, 61]	**MD, -0.08; 95% CI -0.15 to -0.01; I^2=0%**	1 (291)[61]	MD, 0.00; 95% CI -0.20 to 0.20; I^2=NA
	LDL Cholesterol (mmol/l)	24 (2,846)[1-3, 6, 9, 12, 13, 18, 21, 22, 28-33, 41, 47-49, 51, 55]	MD, -0.03; 95% CI -0.12 to 0.06; I^2=62%	4 (363)[33, 51, 61]	MD, -0.16; 95% CI -0.57 to 0.25; I^2=47%	1 (291)[61]	MD, 0.00; 95% CI -0.09 to 0.09; I^2=NA

Category	Outcomes	Timepoint					
		EOI		6m		12m	
		# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect
	Triglycerides (mmol/l)	21 (2,344)[1, 2, 6, 9, 14, 18, 21, 22, 25, 29-33, 41, 42, 48, 49, 55]	**MD, -0.17; 95% CI -0.29 to -0.05; I^2=36%**	4 (618)[14, 33, 53, 61]	MD, -0.23; 95% CI -0.35 to 0.11; I^2=0%	1 (291)[61]	MD, -0.20; 95% CI -0.45 to 0.05; I^2=NA
	Systolic Blood Pressure (mmHg)	32 (4,182)[1-4, 6, 7, 9, 10, 12-14, 18, 21, 22, 25, 26, 28-30, 32, 33, 39, 41, 42, 47, 49, 51, 53, 73, 77]	MD, -0.46; 95% CI -1.6 to 0.68; I^2=21%	9 (1,519)[14, 33, 51, 53, 61, 71, 77]	MD, -0.65; 95% CI -2.3 to 1; I^2=0%	1 (291)[61]	MD, -2.80; 95% CI -7.69 to 2.09; I^2=NA
	Diastolic Blood Pressure (mmHg)	29 (3,989)[1-4, 6, 7, 9, 10, 12, 13, 18, 21, 22, 25, 26, 28-30, 32, 39, 41, 42, 47, 49, 53, 73, 77]	MD, -0.77; 95% CI -1.58 to 0.04; I^2=28%	6 (1,330)[33, 53, 61, 71, 77]	**MD, -1.14; 95% CI -1.78 to -0.5; I^2=0%**	1 (291)[61]	MD, -2.20; 95% CI -4.73 to 0.33; I^2=NA
	Depression Symptoms	11 (1,546)[5, 7, 17, 21, 32-34, 38, 49, 53]	SMD, -0.15; 95% CI -0.31 to 0.01; I^2=49%	4 (1,095)[33, 53, 65, 67]	SMD, -0.17; 95% CI -0.78 to 0.44; I^2=82%	NA	NA
	Anxiety Symptoms	NA	NA	NA	NA	NA	NA
Behavioral Outcomes	Change in Physical Activity - Duration/ Intensity (Subjective [days/week])	8 (1,216)[19, 37, 43, 48-50, 54, 76]	MD, 0.55; 95% CI -0.04 to 1.14; I^2=80%	2 (270)[61, 79]	MD, 1.73; 95% CI -8.82 to 12.28; I^2=91%	2 (382)[61, 76]	**MD, 0.90; 95% CI 0.9 to 0.9; I^2=0%**
	Change in Physical Activity - Duration/ Intensity (Objective)	5 (373)[20, 23, 39, 48]	**SMD, 0.49; 95% CI -0.24 to 1.22; I^2=74%**	NA	NA	NA	NA
	Change in Physical Activity – Fitness	1 (194)[15]	SMD, 0.09; 95% CI -0.14 to 0.32; I^2=NA	1 (134)[60]	SMD, 0.03; 95% CI -0.30 to 0.37; I^2=NA	1 (134)[60]	SMD, 0.11; 95% CI -0.23 to 0.44; I^2=NA
	Change in	NA	NA	NA	NA	NA	NA

Category	Outcomes	Timepoint					
		EOI		6m		12m	
		# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect
	Physical Activity – Strength						
	Change in Dietary Intake – Energy Intake (kcal/day)	10 (1,129)[1, 2, 10, 20, 23, 33, 34, 77, 80]	**MD, -122.07; 95% CI -211.04 to -33.1; I^2=53%**	3 (469)[33, 61, 77]	**MD, -64.05; 95% CI -96.44 to -31.66; I^2=0%**	1 (191)[61]	MD, 114.00; 95% CI -308.19 to 536.19; I^2=NA
	Change in Dietary Intake – Saturated Fat Intake (% of daily kcal)	9 (1,173)[2, 10, 20, 33, 34, 49, 50, 80]	MD, -0.32; 95% CI -0.78 to 0.14; I^2=42%	2 (232)[33, 61]	MD, -0.40; 95% CI -8.82 to 8.02; I^2=23%	1 (191)[61]	MD, -1.10; 95% CI -2.22 to 0.02; I^2=NA
	Adherence to Medication (higher scores desireable)	4 (742)[13, 15, 54, 76]	SMD, -0.17; 95% CI -0.70 to 0.36; I^2=75%	1 (54)[79]	SMD, 0.42; 95% CI -0.12 to 0.96; I^2=NA	1 (191)[76]	**SMD, -0.50; 95% CI -0.79 to -0.21; I^2=NA**
Health Outcomes	Quality of Life – SF-36 Physical	5 (787)[10, 32, 39, 49]	MD, 0.45; 95% CI -0.05 to 0.95; I^2=0%	NA	NA	NA	NA
	Quality of Life – SF-36 Mental	5 (787)[10, 32, 39, 49]	MD, 1.60; 95% CI -1.96 to 5.16; I^2=86%	NA	NA	NA	NA
	Quality of Life – Other (higher score desireable)	4 (447)[27, 43, 53, 54]	SMD, 0.12; 95% CI 0 to 0.24; I^2=40%	3 (789)[53, 66, 67]	SMD, 0.08; 95% CI -0.11 to 0.27; I^2=0%	NA	NA
	Diabetes-specific Quality of	8 (1,384)[5, 7, 36, 42-44, 47, 68]	**MD, -1.82; 95% CI -3.43 to -**	4 (1,382)[60, 68, 71]	MD, -1.89; 95% CI -4.37 to 0.59;	3 (757)[60, 71]	MD, -1.30; 95% CI -5.84 to 3.24; I^2=0%

Category	Outcomes	Timepoint					
		EOI		6m		12m	
		# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect
	Life – Diabetes Distress (PAID)		**0.21; I^2=0%**		I^2=0%		
	Diabetes-specific Quality of Life – Other (lower scores desireable)	5 (753)[15, 17, 20, 21, 33, 54]	SMD, -0.21; 95% CI -0.55 to 0.13; I^2=51%	3 (366)[33, 60, 61]	SMD, -0.04; 95% CI -0.38 to 0.3; I^2=0%	2 (325)[60, 61]	SMD, -0.09; 95% CI -1.15 to 0.97; I^2=0%
	Mortality – All cause (Longest followup)	20 (3,964)[5, 14, 20, 28, 35, 39-43, 53, 57, 61, 62, 71, 72, 75-77]	RR, 1.32; 95% CI 0.82 to 2.12; I^2=4%	NA	NA	NA	NA
Health Care Utilization	Emergency Department Visits (Previous 6 months)	NA	NA	2 (762)[66, 67]	MD, -0.07; 95% CI -0.7 to 0.56	NA	NA
	Days of Hospital Stay (Previous 6 months)	NA	NA	2 (646)[66, 67]	MD, 0.24; 95% CI -1.52 to 2.0	NA	NA
Program Acceptability	Participant Attrition (Longest followup)	72 (13,191)[1-6, 8, 10-22, 24, 26-34, 36-44, 47, 49, 52-63, 65-79, 81]	**RR, 1.09; 95% CI 1.03 to 1.15; I^2=46%**	NA	NA	NA	NA

BMI = body mass index; CI = confidence interval; EOI = end of intervention; HbA_{1c} = hemoglobin A_{1c}; I^2 = statistical heterogeneity; kg = kilograms; m = month; MD = mean difference; NA = not applicable; RR = risk ratio; SMD = standardized mean difference

Table I2. Effectiveness of behavioral programs compared with active control for type 2 diabetes

Category	Outcomes	Timepoint					
		EOI		6m followup		12m followup	
		# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect
Clinical Outcomes	Glycemic Control (HbA_{1c})	24(7,439)[15, 19, 23, 82-96]	**MD, -0.25; 95% CI -0.42 to -0.08; I^2=71%**	6 (595)[95, 97-100]	**MD, -0.19; 95% CI -0.37 to -0.01; I^2=0%**	6 (486)[84, 91, 95, 100]	MD, -1.10; 95% CI -2.56 to 0.36; I^2=98%
	Change in Body Composition (BMI)	10 (1,323)[15, 19, 82, 88-91, 93]	MD, -0.52; 95% CI -1.08 to 0.04; I^2=66%	1 (38)[97]	MD, -2.20; 95% CI -6.80 to 2.40; I^2=NA	2 (181)[91]	MD, -0.30; 95% CI -0.3 to -0.3; I^2=0%
	Weight (kg)	14 (6,145)[19, 23, 82, 85, 86, 88-90, 92, 93, 96, 101]	**MD, -1.42; 95% CI -2.66 to -0.18; I^2=79%**	3 (439)[97, 98, 100]	MD, 0.14; 95% CI -3.41 to 3.69; I^2=67%	1 (95)[100]	**MD, 3.70; 95% CI 1.67 to 5.73; I^2=NA**
	Change in Body Composition (% body fat)	NA	NA	NA	NA	NA	NA
	Change in Body Composition (waist circumference [cm])	5 (5,332)[86, 88, 90, 93, 96]	MD, -2.54; 95% CI -5.78 to 0.7; I^2=79%	1 (38)[97]	**MD, -5.70; 95% CI -6.54 to -4.86; I^2=NA**	NA	NA
	Total Cholesterol (mmol/l)	8 (928)[82, 85, 88, 89, 91, 101]	**MD, -0.26; 95% CI -0.46 to -0.06; I^2=50%**	1 (167)[98]	MD, 0.08; 95% CI -0.15 to 0.30; I^2=NA	2 (181)[91]	MD, -0.15; 95% CI -0.79 to 0.49; I^2=0%
	HDL Cholesterol (mmol/l)	8 (6,005)[82, 85, 89, 91, 96, 101]	**MD, 0.02; 95% CI 0.0 to 0.04; I^2=0%**	2 (401)[98, 100]	MD, 0.03; 95% CI -0.84 to 0.9; I^2=54%	2 (181)[91]	MD, 0.1; 95% CI -0.22 to 0.02; I^2=0%
	LDL Cholesterol (mmol/l)	6 (5,824)[82, 85, 89, 96, 101]	MD, 0.02; 95% CI -0.03 to 0.07; I^2=0%	2 (401)[98, 100]	MD, 0.13; 95% CI -1.52 to 1.78; I^2=75%	NA	NA
	Triglycerides (mmol/l)	9 (6,073)[82, 85, 88, 89, 91, 96, 101]	MD, -0.16; 95% CI -0.41 to 0.09; I^2=72%	1 (167)[98]	MD, -0.05; 95% CI -0.40 to 0.30; I^2=NA	2 (181)[91]	MD, -0.36; 95% CI -0.99 to 0.27; I^2=0%

Category	Outcomes	Timepoint					
		EOI		6m followup		12m followup	
		# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect
	Systolic Blood Pressure (mmHg)	5 (5,895)[82, 88, 90, 92, 96]	MD, -0.63; 95% CI -3.13 to 1.87; I^2=19%	2 (205)[97, 98]	MD, 2.49; 95% CI -10.46 to 15.44; I^2=0%	NA	NA
	Diastolic Blood Pressure (mmHg)	5 (5,895)[82, 88, 90, 92, 96]	MD, -0.36; 95% CI -3.03 to 2.31; I^2=54%	2 (205)[97, 98]	MD, 0.06; 95% CI -8.6 to 8.72; I^2=0%	NA	NA
	Depression Symptoms	3 (4,982)[82, 93, 96]	SMD, -0.00; 95% CI -0.8 to 0.8; I^2=0%	NA	NA	NA	NA
	Anxiety Symptoms	3 (233)[91, 93]	**MD, -1.49; 95% CI -2.1 to -0.88; I^2=0%**	NA	NA	2 (181)[91]	**MD, -1.80; 95% CI -3.07 to -0.53; I^2=0%**
Behavioral Outcomes	Change in Physical Activity - Duration/ Intensity (Subjective [days/week])	1 (40)[19]	**MD, -1.06; 95% CI -1.82 to -0.31; I^2=NA**	NA	NA	NA	NA
	Change in Physical Activity - Duration/ Intensity (Objective)	2 (46)[23]	SMD, 1.24; 95% CI -12.99 to 15.47; I^2=89%	NA	NA	NA	NA
	Change in Physical Activity – Fitness	3 (102)[83, 85, 101]	SMD, 0.55; 95% CI -0.92 to 2.02; I^2=55%	NA	NA	NA	NA
	Change in Physical Activity – Strength	NA	NA	NA	NA	NA	NA
	Change in Dietary Intake – Energy Intake (kcal/day)	7 (242)[23, 85, 86, 90, 92, 93]	MD, -158.94; 95% CI -333.73 to 15.85; I^2=38%	1 (38)[97]	MD, -70.00; 95% CI -847.59 to 707.59; I^2=NA	NA	NA

Category	Outcomes	Timepoint					
		EOI		6m followup		12m followup	
		# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect
	Change in Dietary Intake – Saturated Fat Intake (% of daily kcal)	2 (74)[85, 93]	MD, -1.40; 95% CI -10.64 to 7.84; I^2=22%	1 (38)[97]	MD, 2.00; 95% CI -0.77 to 4.77; I^2=NA	NA	NA
	Adherence to Medication	4 (1,309)[15, 82, 87]	SMD, -0.05; 95% CI -0.17 to 0.07; I^2=0%	NA	NA	NA	NA
Health Outcomes	Quality of Life – SF-36 Physical	2 (4,432)[88, 96]	MD, 5.00; 95% CI -50.92 to 60.92; I^2=85%	1 (167)[98]	MD, 1.60; 95% CI -1.18 to 4.38; I^2=NA	NA	NA
	Quality of Life – SF-36 Mental	2 (4,432)[88, 96]	MD, -2.59; 95% CI -48.65 to 43.47; I^2=74%	1 (167)[98]	MD, -1.00; 95% CI -3.82 to 1.82; I^2=NA	NA	NA
	Quality of Life – Other (lower score desireable)	2 (767)[82, 91]	SMD, -0.08; 95% CI -0.47 to 0.31; I^2=11%	NA	NA	2 (181)[91]	SMD, -0.06; 95% CI -0.57 to 0.45; I^2=0%
	Diabetes-specific Quality of Life – Diabetes Distress (PAID)	NA	NA	1 (167)[98]	MD, 1.10; 95% CI -2.08 to 4.28; I^2=NA	NA	NA
	Diabetes-specific Quality of Life – Other (lower score desireable)	4 (1,309)[15, 82, 87]	SMD, 0.04; 95% CI -0.02 to 0.1; I^2=17%	NA	NA	NA	NA
	Mortality – All cause (Longest followup)	4 (5,949)[82, 94, 96]	**RR, 0.86; 95% CI, 0.77 to 0.96; I^2=0%**	NA	NA	NA	NA

Category	Outcomes	Timepoint					
		EOI		6m followup		12m followup	
		# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect	# comparisons (# subjects)	Study Effect
Program Acceptability	Participant Attrition	19 (7,502)[15, 19, 82-84, 86, 88, 90-99]	**RR, 0.87; 95% CI 0.78 to 0.98; I^2=0%**				

BMI = body mass index; CI = confidence interval; EOI = end of intervention; HbA_{1c} = hemoglobin A_{1c}; I^2 = statistical heterogeneity; kg = kilograms; m = month; MD = mean difference; NA = not applicable; RR = risk ratio; SMD = standardized mean difference

Table I3. Comparative effectiveness of behavioral programs for type 2 diabetes

Outcome	Category of Comparative Effectiveness	# trials (# subjects)	Study Effect at (Longest Followup	Conclusion
HbA_{1c}	Addition of Support to DSME	3 (387)[94, 102, 103]	MD, -0.07; 95% CI -0.35 to 0.22	No difference when adding tailoring (African American women) and social support in community to clinic-based lifestyle program
	Addition of Support to Lifestyle Program	1 (114)[20]	MD, 0.20; 95% CI -0.94 to 1.34	No difference when adding tailoring (African American women) and social support in community to clinic-based lifestyle program
	Addition of Another Component to DSME	4 (547)[87, 104-106]	MD, 0.86; 95% CI -0.03 to 1.76	No difference when adding care coordination,[104] PST,[87] MT,[105] or PA[106] to DSME [87, 105]or DSME + Support[104, 106]
	Addition of Another Component to Lifestyle Program	3 (241)[107-109]	MD, -0.05; 95% CI -0.34 to 0.25	No difference when adding MI[108, 109] or blood glucose regulation[107] interventions to a lifestyle program
	High vs. Low Intensity	2 (209)[110, 111]	MD, -0.41; 95% CI -1.22 to 0.41	No difference between high and low intensity DSME and support programs
	Delivery of DSME via telemedicine vs. in person	1 (37)[112]	MD, 0.10; 95% CI -1.08 to 1.28	No difference when delivery of empowerment DSME with CST via telemedicine vs. in person at clinic
	Delivery of DSME to groups vs. individuals	3 (701)[71, 91, 113]	**MD, -0.36; 95% CI -0.63 to -0.08**	**Improved using group compared with individual delivery of DSME**
	Delivery by Peers vs. HCP	4 (575)[102, 103, 114, 115]	MD, 0.00; 95% CI -0.23 to 0.23	No difference when delivery of DSME[102, 114] or support phase[103, 115] by peer compared with HCP
	Delivery by non-HCPs vs. HCP	1 (72)[103]	MD, 0.02; 95% CI -0.60 to 0.64	No difference when support after DSME is provided by clinic staff vs. DM educators
	Addition of peers to CHW-led DSME + Support	1 (116)[116]	MD, -0.30; 95% CI -0.90 to 0.30	No difference when adding peer leaders to support phase of CHW-led DSME + Support (Partners in Care)
	Others	1 (99)[117]	MD, -0.30; 95% CI -0.72 to 0.12	No difference between CBT-based lifestyle program with portion-controlled diet and DSME with meal plan

Outcome	Category of Comparative Effectiveness	# trials (# subjects)	Study Effect at (Longest Followup	Conclusion
		1 (600)[118]	MD, -0.07; 95% CI -0.22 to 0.08	No difference between DSME using PRECEDE model vs. conventional health promotion model
		1 (24)[51]	MD, 0.19; 95% CI -0.76 to 1.14	No difference between DSME with problem-solving approach using telephone delivery to couples vs. individuals
		1 (21)[119]	MD, 0.13; 95% CI -1.18 to 1.44	No difference between group-based culturally tailored DSME to individual DSME for rural African Americans
		1 (143)[120]	**MD, -0.30; 95% CI -0.58 to -0.02**	**Improved with individual DSME with MI vs. group-based empowerment DSME with supervised group exercise**
Change in Body Composition (BMI)	Addition of Support to DSME	2 (259)[102, 103]	MD, -0.08; 95% CI -0.58 to 0.41	No difference when adding tailoring (African American women) and social support in community to clinic-based lifestyle program
	Addition of Another Component to DSME	3 (255)[104-106]	MD, 0.08; 95% CI -0.48 to 0.64	No difference when adding care coordination,[104] MT,[105] or PA[106] to DSME or DSME + Support
	Delivery of DSME to groups vs. individuals	2 (212)[91, 113]	MD, 0.16; 95% CI -1.12 to 1.44	No difference using group delivery compared with individual delivery of DSME
	Delivery by Peers vs. HCP	2 (263)[102, 103]	MD, 0.47; 95% CI -0.32 to 1.26	No difference when delivery of DSME[102] or support phase[103] by peer compared with HCP
	Delivery by non-HCPs vs. HCP	1 (73)[103]	MD, 0.31; 95% CI -0.72 to 1.34	No difference when support after DSME is provided by clinic staff vs. DM educators[103]
	Addition of peers to CHW-led DSME + Support	1 (116)[116]	MD, 0.50; 95% CI -0.24 to 1.24	No difference when adding peer leaders to support phase of CHW-led DSME + Support (Partners in Care)
	Other	1 (99)[117]	**MD, -1.80; 95% CI -2.51 to -1.09**	**Improved with CBT-based lifestyle program with portion-controlled diet compared with DSME with meal plan**
		1 (600)[118]	MD, 0.06; 95% CI -0.19 to 0.31	No difference between DSME using PRECEDE model vs. conventional health promotion model
		1 (24)[51]	MD, -0.04; 95% CI -5.27 to 5.19	No difference between DSME with problem-solving approach using telephone delivery to couples vs. individuals
Change in Body Composition (Weight [kg])	Addition of Support to Lifestyle Program	1 (112)[20]	MD, 0.41; 95% CI -7.21 to 8.03	No difference when adding tailoring (African American women) and social support in community to clinic-based lifestyle program
	Addition of Another Component to Lifestyle Program	3 (241)[107-109]	MD, -1.14; 95% CI -2.80 to 0.52	No difference when adding MI[108, 109] or blood glucose regulation[107] interventions to a lifestyle program
	High vs. Low Intensity	1 (96)[78]	MD, -1.30; 95% CI -2.90 to 0.30	No difference between high and low intensity lifestyle program tailored to medically underserved

Outcome	Category of Comparative Effectiveness	# trials (# subjects)	Study Effect at (Longest Followup	Conclusion
	Delivery of DSME to groups vs. individuals	2 (581)[71, 113]	MD, -0.15; 95% CI -0.87 to 0.58	No difference using group compared with individual delivery of DSME
	Other	1 (99)[71, 117]	**MD, -5.10; 95% CI -7.22 to -2.98**	**Improved with CBT-based lifestyle program with portion-controlled diet compared with DSME with meal plan**
		1 (121)[120]	MD, -0.10; 95% CI -1.30 to 1.10	No difference between individual DSME with MI and. group-based empowerment DSME with supervised group exercise
Change in Body Composition (waist circumference)	Addition of Another Component to DSME + Support	1 (88)[106]	MD -2.00; 95% CI -5.75 to 1.75	No difference when adding PA to DSME + Support
	Addition of peers to CHW-led DSME + Support	1 (116)[116]	MD, 0.25; 95% CI -2.44 to 2.95	No difference when adding peer leaders to support phase of CHW-led DSME + Support (Partners in Care)
	Others	1 (99)[117]	**MD, -3.60; 95% CI -5.33 to -1.87**	**Improved with CBT-based lifestyle program with portion-controlled diet compared with DSME with meal plan**
		1 (24)[51]	MD, -1.22; 95% CI -10.32 to 7.88	No difference between DSME with problem-solving approach using telephone delivery to couples vs. individuals
		1 (121)[120]	MD, -0.20; 95% CI -1.51 to 1.11	No difference between individual DSME with MI and. group-based empowerment DSME with supervised group exercise
Change in Dietary Intake (kcal/d)	Addition of Support to Lifestyle Program	1 (102)[20]	MD, -65.00; 95% CI -195.23 to 65.23	No difference when adding tailoring (African American women) and social support in community to clinic-based lifestyle program
Change in Dietary Intake (% saturated fat/kcal)	Addition of Support to Lifestyle Program	1 (102)[20]	MD, 0.14; 95% CI -0.25 to 0.53	No difference when adding tailoring (African American women) and social support in community to clinic-based lifestyle program
Medication Adherence	Addition of Another Component to DSME	1 (296)[87]	SMD, 0.05; 95% CI -0.18 to 0.28	No difference when adding PST to DSME
Change in Physical Activity – Intensity/ Duration (subjective; days per week)	Delivery of DSME to groups vs. individuals	1 (92)[113]	MD, 1.30; 95% CI -0.70 to 0.90	No difference in group compared with individual delivery of DSME
	Delivery by non-HCPs vs. HCP	1 (73)[103]	MD, 0.56; 95% CI -1.11 to 1.80	No difference when support after DSME is provided by clinic staff vs. DM educators
	Others	1 (121)[120]	**MD, 1.30; 95% CI 0.80 to 1.80**	**Improved between individual DSME with MI and. group-based empowerment DSME with supervised group exercise**

Outcome	Category of Comparative Effectiveness	# trials (# subjects)	Study Effect at (Longest Followup	Conclusion
Change in Physical Activity – Intensity/ Duration (objective)	Addition of Support to Lifestyle Program	1 (111)[20]	SMD, 0.23; 95% CI -0.15 to 0.60	No difference when adding tailoring (African American women) and social support in community to clinic-based lifestyle program
Change in Physical Activity – Fitness	Addition of Another Component to DSME + Support	1 (88)[106]	**SMD, 0.62; 95% CI 0.19 to 1.05**	**Improved when adding a PA component to DSME + Support**
Quality of Life-Other	Delivery of DSME to groups vs. individuals	1 (120)[91]	SMD, -0.08; 95% CI -0.44 to 0.28	No difference using group compared with individual delivery of DSME
Quality of Life – SF-36 Physical	Delivery of DSME to groups vs. individuals	1 (92)[113]	MD, -0.80; 95% CI -4.04 to 2.44	No difference in group compared with individual delivery of DSME
Quality of Life – SF-36 Mental	Delivery by Peers vs. HCP	1 (221)[115]	MD, -0.20; 95% CI -2.21 to 1.81	No difference when delivery of support phase by peer compared with HCP
Diabetes-related Quality of Life	Addition of Another Component to DSME	1 (196)[87]	MD, 0.14; 95% CI -0.09 to 0.37	No difference when adding PST to DSME
	Delivery by Peers vs. HCP	1 (198)[102]	SMD, 0.11; 95% CI -0.17 to 0.38	No difference when delivery of DSME by peer compared with HCP
	Delivery of DSME via telemedicine vs. in person	1 (35)[112]	SMD, -0.06; 95% CI -0.72 to 0.61	No difference when delivery of empowerment DSME with CST via telemedicine vs. in person at clinic
	Addition of Support to Lifestyle Program	1 (119)[20]	SMD, 0.04; 95% CI -0.32 to 0.40	No difference when adding tailoring (African American women) and social support in community to clinic-based lifestyle program
	Other	1 (121)[120]	SMD, 0.15; 95% CI -0.20 to 0.51	Improved between individual DSME with MI and. group-based empowerment DSME with supervised group exercise
Diabetes Distress	Delivery of DSME via telemedicine vs. in person	1 (31)[112]	MD, 3.60; 95% CI -12.05 to 19.25	No difference when delivery of empowerment DSME with CST via telemedicine vs. in person at clinic
	Delivery by non-HCPs vs. HCP	1 (73)[103]	MD, 2.40; 95% CI -5.65 to 10.45	No difference when support after DSME is provided by clinic staff vs. DM educators
	Delivery by Peers vs. HCP	1 (74)[103]	**MD, 24.70; 95% CI 15.02 to 34.38**	**Increased distress with delivery of support phase by peers compared with HCP**

BMI = body mass index; CBT = cognitive-behavioral theory; CHW = community health worker; CI = confidence interval; CST = coping skills therapy; DM = diabetes mellitus; EOI = end of intervention; HbA_{1c} = hemoglobin A_{1c}; HCP = health care professional; m = month; MD = mean difference; MI = motivational interviewing; MT = music therapy; NA = not applicable; PA = physical activity; PST = problem-solving training; SMD = standardized mean difference

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Appendix J

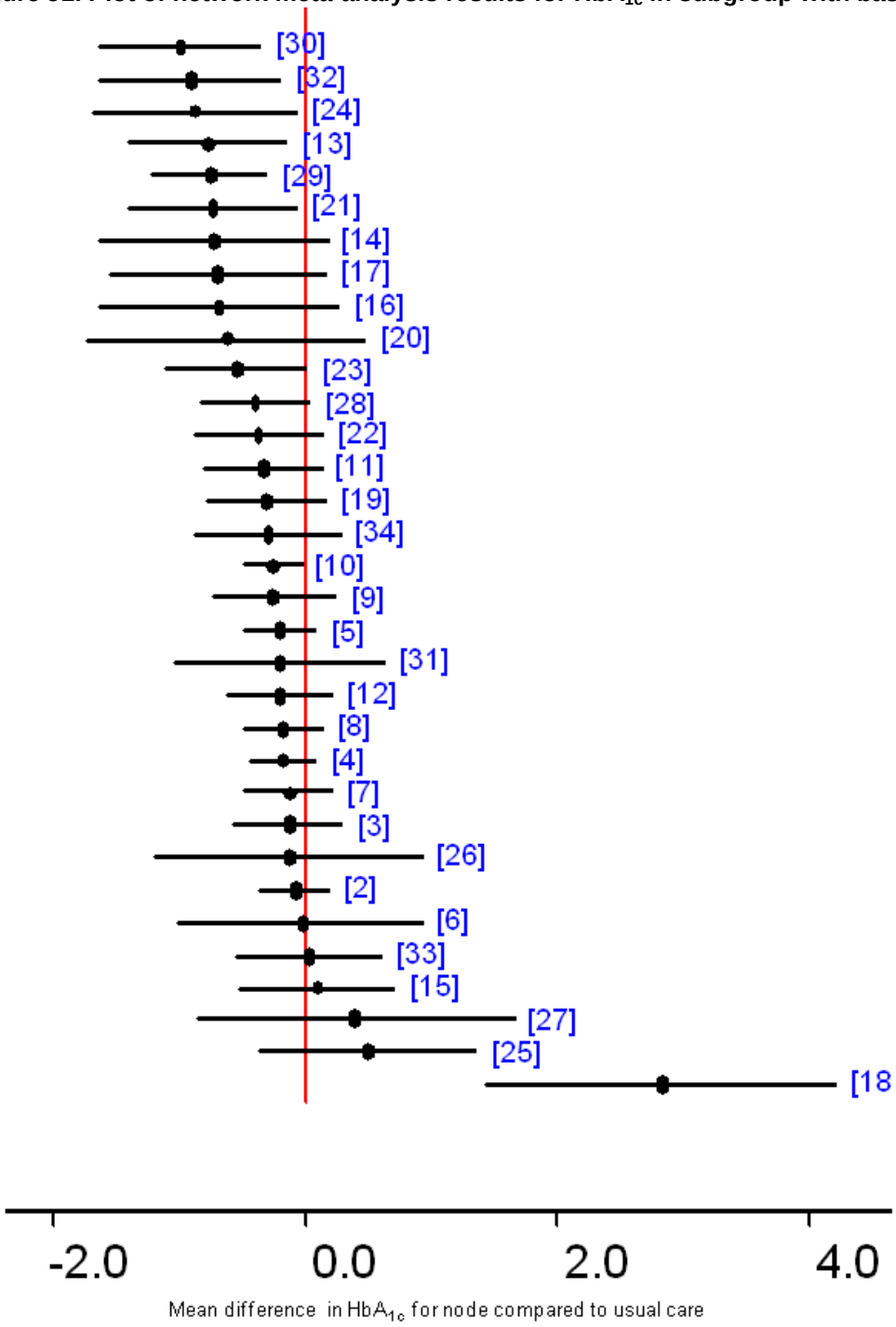
Figure J1. Plot showing rank order from network meta-analysis for subgroup with baseline $HbA_{1c} \geq 7$ percent

Table J1. Network meta-analysis (NMA) for subgroup with baseline $HbA_{1c} \geq 7$ percent: Description of nodes and results

Figure J2. Plot showing rank order from network meta-analysis for participants <65 years of age

Table J2. Network meta-analysis (NMA) for participants <65 years of age: Description of nodes and results

Figure J1. Plot of network meta-analysis results for HbA_{1c} in subgroup with baseline HbA_{1c} ≥7%



This plot depicts the results from our network meta-analysis for the outcome of HbA_{1c} in a subgroup of participants with baseline HbA1c ≥7 percent. Each number in the plot represents a node containing the study arms cited in the Network Node column of Table J1. The black circles indicate the benefit (mean difference in $\%HbA_{1c}$) for the nodes when compared with a reference of usual care (the center line). All nodes at and above node 28 were found to have a mean difference at or above our threshold for clinical importance (greater than 0.40% HbA_{1c} reduction than usual care). Node 2 represents non-DSME control arms and node 3 represents active "other" controls, usually consisting of dietary or physical activity (but not multicomponent) interventions.

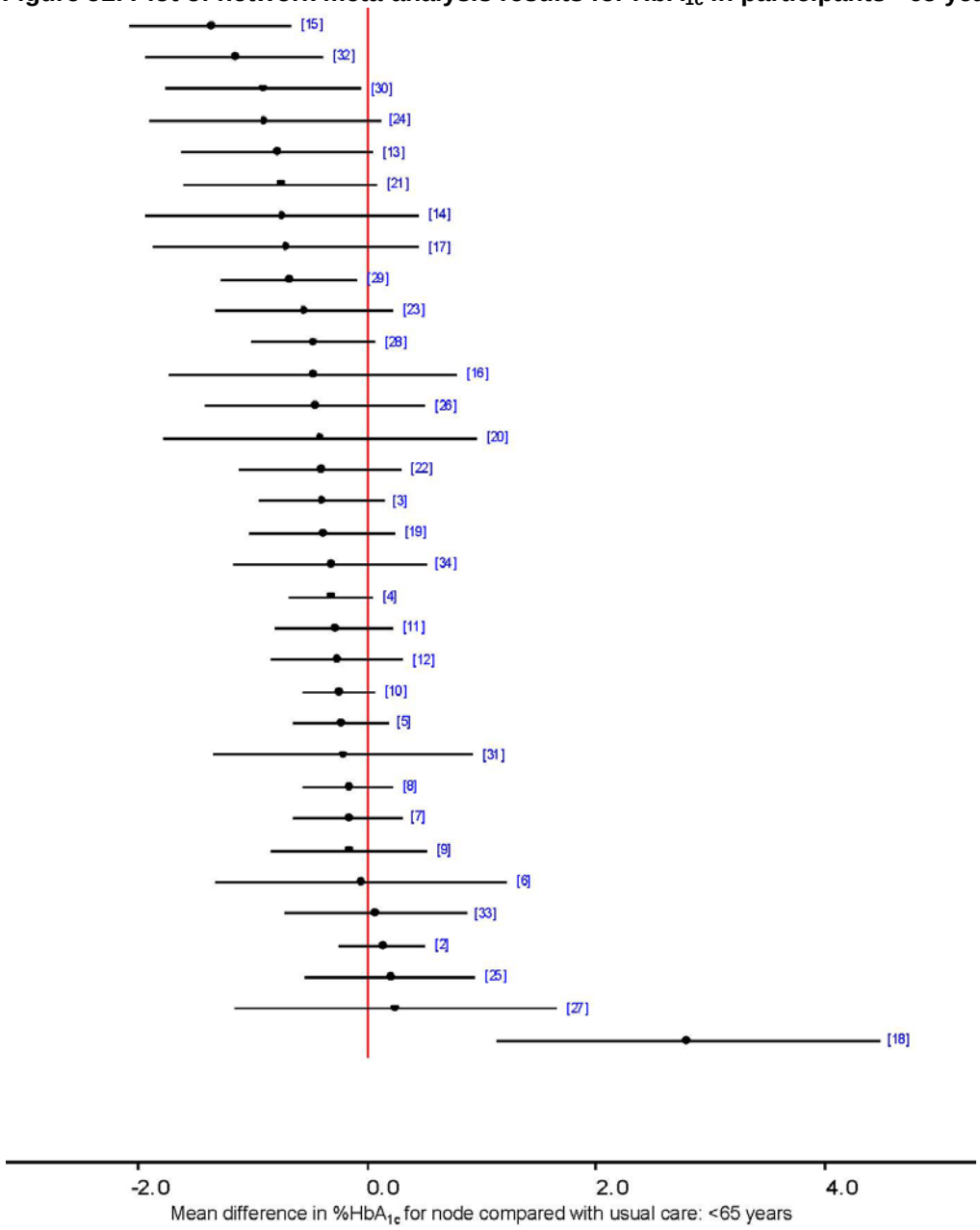
Table J1. Network meta-analysis for HbA_{1c}, suboptimal glycemic control subgroup (HbA_{1c}≥7): Description of nodes and results

Arm Description	Network Node	Intensity	Method of Communication	Delivery Method	Delivery Personnel	Rank Order in NMA	MD, 95% Credibility Interval	Probability of Being Best
Usual care	1[1-67]	NA	NA	NA	NA	NA	0 [NA, NA]	0.0%
Active comparator (non-DSME)	2[22, 26, 68-78]	NA	NA	NA	NA	27	-0.08 [-0.36, 0.20]	0.0%
Active comparator (other)	3[30, 79-84]	NA	NA	NA	NA	25	-0.13 [-0.56, 0.30]	0.0%
DSME	4[1, 12, 23, 51, 55, 57, 60, 70, 85-88]	≤10h	In person	Individual & mixed	HCP	23	-0.17 [-0.43, 0.10]	0.0%
	5[19, 40, 57, 69, 75, 78, 86, 89-91]	≤10h	In person	Group only	HCP	19	-0.20 [-0.50, 0.08]	0.0%
	6[89]	≤10h	In person	Group only	Non-HCP	28	-0.03 [-1.00, 0.93]	0.5%
	7[18, 22, 24, 34, 52, 63, 85]	≤10h	Some technology	Individual & mixed	HCP	24	-0.13 [-0.50, 0.22]	0.0%
	8[20, 21, 25, 46-48, 64, 65, 72]	≤10h	Some technology	Individual & mixed	Non-HCP	22	-0.18 [-0.49, 0.13]	0.0%
	9[36, 41, 76]	11-26h	In person	Individual & mixed	HCP	18	-0.25 [-0.73, 0.23]	0.0%
	10[2, 6, 13, 14, 17, 31, 50, 58, 74, 76, 87, 91, 92]	11-26h	In person	Group only	HCP	17	-0.26 [-0.49, -0.03]	0.0%
	11[32, 53, 54]	11-26h	In person	Group only	Non-HCP	14	-0.34 [-0.80, 0.13]	0.0%
	12[4, 7, 10, 16]	11-26h	Some technology	Individual & mixed	HCP	21	-0.19 [-0.61, 0.21]	0.0%
	13[33, 56]	11-26h	Some technology	Individual & mixed	Non-HCP	4	-0.78 [-1.40, -0.15]	5.8%
	14[43]	≥27h	In person	Individual & mixed	HCP	7	-0.73 [-1.63, 0.18]	10.3%
	15[83, 88]	≥27h	In person	Group only	HCP	30	0.10 [-0.52, 0.72]	0.0%
	16[77]	≥27h	Some technology	Individual & mixed	HCP	9	-0.68 [-1.64, 0.27]	9.3%
DSME + Support	17[39]	≤10h	In person	Individual & mixed	NA	8	-0.70 [-1.56, 0.16]	8.1%
	18[93]	≤10h	In person	Group only	NA	33	2.83 [1.43, 4.22]	0.0%
	19[37, 84, 90]	≤10h	Some technology	Individual & mixed	NA	15	-0.30 [-0.76, 0.16]	0.0%
	20[71]	11-26h	In person	Individual & mixed	NA	10	-0.62 [-1.72, 0.48]	10.4%
	21[38, 94, 95]	11-26h	In person	Group only	NA	6	-0.74 [-1.40, -0.08]	4.2%
	22[29, 49, 93, 95]	11-26h	Some technology	Individual & mixed	NA	13	-0.37 [-0.88, 0.14]	0.1%
	23[44, 45]	≥27h	In person	Individual & mixed	NA	11	-0.55 [-1.10, 0.01]	0.8%
	24[11, 94]	≥27h	In person	Group only	NA	3	-0.88 [-1.68, -0.07]	14.4%
Lifestyle	25[9, 27]	≤10h	In person	Individual & mixed	NA	32	0.51 [-0.35, 1.37]	0.0%
	26[79]	≤10h	In person	Group only	NA	26	-0.13 [-1.19, 0.93]	1.4%

Arm Description	Network Node	Intensity	Method of Communication	Delivery Method	Delivery Personnel	Rank Order in NMA	MD, 95% Credibility Interval	Probability of Being Best
	27[27]	≤10h	Some technology	Individual & mixed	NA	31	0.40 [-0.85, 1.65]	0.4%
	28[26, 28, 30, 59, 81, 96]	11-26h	In person	Individual & mixed	NA	12	-0.40 [-0.83, 0.03]	0.0%
	29[35, 67, 73, 92, 96]	11-26h	In person	Group only	NA	5	-0.75 [-1.20, -0.30]	2.0%
	30[8, 15]	11-26h	Some technology	Individual & mixed	NA	1	-0.99 [-1.62, -0.35]	18.3
	31[66]	11-26h	Some technology	Group only	NA	20	-0.20 [-1.02, 0.63]	0.5%
	32[3, 42, 80]	≥27h	In person	Individual & mixed	NA	2	-0.90 [-1.62, -0.20]	13.3%
	33[61, 62]	≥27h	In person	Group only	NA	29	0.03 [-0.53, 0.60]	0.0%
	34[68, 82]	≥27h	Some technology	Individual & mixed	NA	16	-0.29 [-0.89, 0.28]	0.1%

DSME = diabetes self-management education; h = hour(s); HCP = health care professional; MD = mean difference; NA = not applicable

Figure J2. Plot of network meta-analysis results for HbA_{1c} in participants <65 years of age



This plot depicts the results from our network meta-analysis for the outcome of HbA_{1c} in studies with a mean age of <65 years. Each number in the plot represents a node containing the study arms cited in the Network Node column of Table J2. The black circles indicate the benefit (mean difference in $\%HbA_{1c}$) for the nodes when compared with a reference of usual care (the center line). All nodes at and above node 22 were found to have a mean difference at or above our threshold for clinical importance (greater than 0.40% HbA_{1c} reduction than usual care). Node 2 represents non-DSME control arms and node 3 represents active "other" controls, usually consisting of dietary or physical activity (but not multicomponent) interventions.

Table J2. Network meta-analysis for HbA_{1c} for participants <65 years of age: Description of nodes and results

Arm Description	Network Node	Intensity	Method of Communication	Delivery Method	Delivery Personnel	Rank Order in NMA	MD, 95% Credibility Interval	Probability of Being Best
Usual care	1[1-9, 11, 12, 14-33, 35-45, 47-58, 60-67, 97-99]	NA	NA	NA	NA	NA	0 [NA, NA]	0.0%
Active comparator (non-DSME)	2[22, 26, 68-78, 100]	NA	NA	NA	NA	30	0.19 [-0.21, 0.60]	0.0%
Active comparator (other)	3[30, 79-81, 83, 101, 102]	NA	NA	NA	NA	11	-0.55 [-1.25, 0.14]	0.0%
DSME	4[1, 12, 23, 51, 55, 57, 60, 70, 85-88]	≤10h	In person	Individual & mixed	HCP	18	-0.30 [-0.70, 0.09]	0.0%
	5[19, 40, 57, 69, 75, 78, 86, 89-91]	≤10h	In person	Group only	HCP	22	-0.19 [-0.63, 0.24]	0.0%
	6[89]	≤10h	In person	Group only	Non-HCP	27	-0.02 [-1.34, 1.30]	0.9%
	7[18, 22, 24, 52, 63, 85]	≤10h	Some technology	Individual & mixed	HCP	26	-0.12 [-0.63, 0.39]	0.0%
	8[20, 21, 25, 47, 48, 64, 65, 72, 97]	≤10h	Some technology	Individual & mixed	Non-HCP	23	-0.14 [-0.56, 0.27]	0.0%
	9[36, 41, 76]	11-26h	In person	Individual & mixed	HCP	24	-0.14 [-0.84, 0.57]	0.0%
	10[2, 6, 14, 17, 31, 50, 58, 74, 76, 87, 91, 92]	11-26h	In person	Group only	HCP	20	-0.24 [-0.59, 0.11]	0.0%
	11[32, 53, 54, 98]	11-26h	In person	Group only	Non-HCP	16	-0.39 [-1.00, 0.22]	0.1%
	12[4, 7, 16]	11-26h	Some technology	Individual & mixed	HCP	25	-0.13 [-0.84, 0.56]	0.0%
	13[33, 56]	11-26h	Some technology	Individual & mixed	Non-HCP	5	-0.78 [-1.64, 0.08]	3.7%
	14[43]	≥27h	In person	Individual & mixed	HCP	7	-0.73 [-1.97, 0.51]	8.2%
	15[83, 88, 100]	≥27h	In person	Group only	HCP	1	-1.38 [-2.13, -0.64]	30.8%
	16[77]	≥27h	Some technology	Individual & mixed	HCP	14	-0.41 [-1.71, 0.89]	3.2%
DSME + Support	17[39]	≤10h	In person	Individual & mixed	NA	8	-0.70 [-1.90, 0.50]	6.9%
	18[93]	≤10h	In person	Group only	NA	33	2.81 [1.10, 4.53]	0.0%
	19[37, 90]	≤10h	Some technology	Individual & mixed	NA	19	-0.26 [-1.09, 0.57]	0.2%
	20[71]	11-26h	In person	Individual & mixed	NA	17	-0.35 [-1.76, 1.06]	3.7%
	21[38, 94, 95]	11-26h	In person	Group only	NA	6	-0.74 [-1.61, 0.14]	2.6%
	22[29, 49, 93, 95]	11-26h	Some technology	Individual & mixed	NA	15	-0.40 [-1.13, 0.34]	0.1%

Arm Description	Network Node	Intensity	Method of Communication	Delivery Method	Delivery Personnel	Rank Order in NMA	MD, 95% Credibility Interval	Probability of Being Best
	23[44, 45]	≥27h	In person	Individual & mixed	NA	12	-0.54 [-1.35, 0.27]	0.9%
	24[11, 94]	≥27h	In person	Group only	NA	4	-0.89 [-1.93, 0.16]	8.7%
Lifestyle	25[9, 27, 99]	≤10h	In person	Individual & mixed	NA	31	0.22 [-0.54, 0.99]	0.0%
	26[79, 102]	≤10h	In person	Group only	NA	10	-0.60 [-1.68, 0.47]	2.6%
	27[27]	≤10h	Some technology	Individual & mixed	NA	32	0.26 [-1.17, 1.70]	0.6%
	28[26, 28, 30, 81, 96]	11-26h	In person	Individual & mixed	NA	13	-0.44 [-1.08, 0.20]	0.0%
	29[35, 67, 73, 92, 96]	11-26h	In person	Group only	NA	9	-0.65 [-1.27, -0.03]	0.4%
	30[8, 15]	11-26h	Some technology	Individual & mixed	NA	3	-0.90 [-1.77, -0.01]	6.5%
	31[66]	11-26h	Some technology	Group only	NA	21	-0.20 [-1.37, 0.98]	1.1%
	32[3, 42, 80, 101]	≥27h	In person	Individual & mixed	NA	2	-1.23 [-2.06, -0.42]	18.7%
	33[61, 62]	≥27h	In person	Group only	NA	28	0.08 [-0.74, 0.91]	0.0%
	34[68]	≥27h	Some technology	Individual & mixed	NA	29	0.22 [-0.54, 0.99]	0.0%

DSME = diabetes self-management education; h = hour(s); HCP = health care professional; MD = mean difference; NA = not applicable

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