

Appendix 1: Search strategy

1# Randomised controlled trial (MeSH) OR controlled clinical trial (MeSH) OR intervention OR management OR therapy OR treatment OR program OR programme OR trial OR RCT* OR experiment * OR placebo OR control OR random *

2# Cognitive behavioural therapy OR cognitive behavioral therapy OR Cognitive behavioral therapy for insomnia OR behavioral therapy OR behavioral management OR CBT-I OR CBT

3# Sleep quality OR Sleep OR insomnia OR sleep efficiency, sleep latency, sleep duration OR wake after sleep onset

4# Diabetes OR Type 1 diabetes OR Type 2 diabetes OR diabetes mellitus patients OR T1DM OR T2DM

5# 1 AND 2 AND 3 AND 4

Appendix 2: List of excluded 93 studies

1. The Impact of a Randomized Controlled Trial of a Lifestyle Intervention on Sleep Among Latina Postpartum Women
2. Re-evaluating randomized clinical trials of psychological interventions: Impact of response shift on the interpretation of trial results
3. Improvements in Sleep Quality after Cognitive Behavioral Therapy for Insomnia Are Associated with Improved 2-Hour Post-Load Glucose
4. [Treatment strategy of insomnia for the patients with metabolic syndrome].
5. Potential Mechanisms Involved in the Effect of Cognitive Behavioral Therapy on Fatigue Severity in Type 1 Diabetes
6. Application and Mechanisms of Internet-Based Cognitive Behavioral Therapy (iCBT) in Improving Psychological State in Cancer Patients
7. Community-based diabetes prevention randomized controlled trial in refugees with depression: effects on metabolic outcomes and depression
8. Cognitive Behavioral Sleep Self-Management Intervention for Young Adults With Type 1 Diabetes
9. Possibilities of behavioral therapy in diabetes mellitus and obesity
10. Comparison of Cognitive Function, Depression, and Sleep Quality among Type 2 Diabetes Mellitus Patients With and Without Diabetic Neuropathy
11. Sleep disorder and behavior problems in children with type 1 diabetes mellitus
12. Living Well with Diabetes: a randomized controlled trial of a telephone-delivered intervention for maintenance of weight loss, physical activity and glycaemic control in adults with type 2 diabetes
13. Data-Driven Insights on Behavioral Factors that Affect Diabetes Management 不是 RCT
14. Cost-Effectiveness of Facilitated Access to a Self-Management Website, Compared to Usual Care, for Patients With Type 2 Diabetes (HeLP-Diabetes): Randomized Controlled Trial
15. Cost-Effectiveness of Facilitated Access to a Self-Management Website, Compared to Usual Care, for Patients With Type 2 Diabetes (HeLP-Diabetes): Randomized Controlled Trial
16. Sleep Quality Among People with Type 2 Diabetes Mellitus During COVID-19 Pandemic: Evidence from Qatar's National Diabetes Center
17. A Randomized Study on the Effect of Weight Loss on Obstructive Sleep Apnea Among Obese Patients With Type 2 Diabetes The Sleep AHEAD Study
18. A Randomized Study on the Effect of Weight Loss on Obstructive Sleep Apnea Among Obese Patients With Type 2 Diabetes The Sleep AHEAD Study
19. Sleep, Glucose, and Daytime Functioning in Youth with Type 1 Diabetes
20. Evaluating the effect of an educational intervention on the adherence rate to sleep study: a multi-centered stratified randomized controlled trial
21. Investigating Causal Relations Between Sleep-Related Traits and Risk of Type 2 Diabetes Mellitus: A Mendelian Randomization Study
22. Investigating Causal Relations Between Sleep-Related Traits and Risk of Type 2 Diabetes Mellitus: A Mendelian Randomization Study
23. Effects of Behavioral Activation on Sleep for Adults with Diabetes and Depression: A Single-Case Experimental Design Approach
24. Sleep and health-related quality of life in adults with type 2 diabetes

25. Daytime Sleepiness and Quality of Sleep in Type 2 Diabetes Mellitus: The Role of Related Questionnaires to Evaluate Its Negative Effect on Sleep Breathing
26. A Randomized Controlled Pilot Study of a Cognitive-Behavioral Therapy Approach for Painful Diabetic Peripheral Neuropathy
27. Randomized trial of a novel lifestyle intervention compared with the Diabetes Prevention Program for weight loss in adult dependents of military service members
28. SLEEP DURATION AND QUALITY IN TYPE 2 DIABETES MELLITUS
29. Improved Technology Satisfaction and Sleep Quality with Medtronic Minimed Advanced Hybrid Closed-Loop Delivery Compared with Predictive Low Glucose Suspend in People with Type 1 Diabetes in a Randomized Crossover Trial
30. Psychological distress and health behaviours among Cambodian Americans at risk for developing diabetes
31. Changes in Patient-Reported Outcome Measures With a Technology-Supported Behavioral Lifestyle Intervention Among Patients With Type 2 Diabetes: Pilot Randomized Controlled Clinical Trial.
32. Cognitive and Behavioral Approaches in the Treatment of Obesity
33. Subjective sleep disturbances and glycemic control in adults with long-standing type 1 diabetes: The Pittsburgh's Epidemiology of Diabetes Complications study
34. Effect of aquatic exercise on mental health, functional autonomy, and oxidative damages in diabetes elderly individuals
35. Sleep and diabetes-specific psycho-behavioral outcomes of a new automated insulin delivery system in young children with type 1 diabetes and their parents
36. Sleep and diabetes-specific psycho-behavioral outcomes of a new automated insulin delivery system in young children with type 1 diabetes and their parents
37. Psychosocial Benefits of Using Control-IQ Technology: Long-Term Outcomes from a Multiethnic Adult Cohort with Type 1 Diabetes
38. Sleep-Disordered Breathing, Hypoxia, and Risk of Mild Cognitive Impairment and Dementia in Older Women
39. Sleep, type 2 diabetes, dyslipidemia, and hypertension in elderly Alzheimer's caregivers
40. The effect of balneotherapy on body mass index, adipokine levels, sleep disturbances, and quality of life of women with morbid obesity
41. Effectiveness of an Energy Management Training Course on Employee Well-Being: A Randomized Controlled Trial
42. Type 1 Diabetes and Sleep.
43. Cultivating Healthy Eating, Exercise, and Relaxation (CHEER): A Case Study of a Family-Centered and Mindfulness-Based Cognitive-Behavioral Intervention for Obese Adolescents at Risk for Diabetes and Cardiovascular Disease
44. Psycho-behavioral and Clinical Characteristics in Koreans with Type 2 Diabetes With or Without Perceived Hypoglycemia
45. EFFICACY OF MULTICOMPONENT BEHAVIORAL TREATMENT, ALPHA-ADRENERGIC ANTAGONIST, AND COMBINED THERAPY IN MEN WITH NOCTURIA: THE BEDTIME TRIAL
46. Maternal sleep during pregnancy and adverse pregnancy outcomes: A systematic review and meta-analysis

47. Effect of a Remotely Delivered Self-directed Behavioral Intervention on Body Weight and Physical Health Status Among Adults With Obesity: The D-ELITE Randomized Clinical Trial.
48. Application and Mechanisms of Internet-Based Cognitive Behavioral Therapy (iCBT) in Improving Psychological State in Cancer Patients.
49. Pilot Trial of a Sleep-Promoting Intervention for Children With Type 1 Diabetes. 不是 CBT
50. Sleep coach intervention for teens with type 1 diabetes: Randomized pilot study.
51. Community-based diabetes prevention randomized controlled trial in refugees with depression: effects on metabolic outcomes and depression.
52. The effects of cognitive behavioral therapy on selected physical, physiological parameters, exercise and nutritional behaviors in diabetic persons.
53. The Effect of Symptom Clusters on Quality of Life Among Patients With Type 2 Diabetes.
54. Emotional distress, self-management, and glycemic control among participants enrolled in the glycemia reduction approaches in diabetes: A comparative effectiveness (GRADE) study.
55. Cognitive behavioral therapy vs. Tai Chi for late life insomnia and inflammatory risk: a randomized controlled comparative efficacy trial.
56. Secondary analysis of a randomized trial testing community health educator interventions for diabetes prevention among refugees with depression: effects on nutrition, physical activity and sleep.
57. Impact of high-risk glycemic control on habitual sleep patterns and sleep quality among youth (13-20 years) with type 1 diabetes mellitus compared to controls without diabetes.
58. Randomized trial of a novel lifestyle intervention compared with the Diabetes Prevention Program for weight loss in adult dependents of military service members.
59. Self-reported outcomes of a randomized trial comparing three community health worker interventions for diabetes prevention among Cambodian Americans with depression
60. Cognitive-behavioral therapy and hypnotic relaxation to treat sleep problems in an adolescent with diabetes.
61. App-technology to improve lifestyle behaviors among working adults - the Health Integrator study, a randomized controlled trial.
62. Cognitive Behavior Therapy and Executive Function in Neurodegenerative Disorders, Psychiatric Disorders, and Injury Research.
63. A web-based survey assessing perceived changes in diet, physical activity and sleeping behaviours in adults with type 1 and type 2 diabetes during the COVID-19 pandemic in the UK.
64. Personalized intervention to improve stress and sleep patterns for glycemic control and weight management in obese Emirati patients with type 2 diabetes: a randomized controlled clinical trial.
65. Efficacy and safety of pregabalin in patients with diabetic peripheral neuropathy or postherpetic neuralgia: Open-label, non-comparative, flexible-dose study.
66. Sleep and sleep disorders in older adults.
67. Lifestyle behaviour patterns in the prevention of type 2 diabetes mellitus: the Fukushima Health Database 2015-2020.
68. Effect of a Lay Counselor Intervention on Prevention of Major Depression in Older Adults Living in Low- and Middle-Income Countries: A Randomized Clinical Trial.

69. Changes in Patient-Reported Outcome Measures With a Technology-Supported Behavioral Lifestyle Intervention Among Patients With Type 2 Diabetes: Pilot Randomized Controlled Clinical Trial.
70. A pilot and feasibility study of a randomized clinical trial testing a self-compassion intervention aimed to increase physical activity behaviour among people with prediabetes.
71. A randomized controlled trial of cognitive behavioral therapy compared with diabetes education for diabetic peripheral neuropathic pain.
72. Who is a candidate for cognitive-behavioral therapy for insomnia?
73. Diabetes prevention and weight loss with a fully automated behavioral intervention by email, Web, and mobile phone: A randomized controlled trial among persons with prediabetes.
74. Effect of a lay counselor intervention on prevention of major depression in older adults living in low- and middle-income countries: A randomized clinical trial.
75. Efficacy and Safety of Varenicline for Smoking Cessation in Patients with Type 2 Diabetes: A Randomized Clinical Trial
76. Sleep and diabetes-specific psycho-behavioral outcomes of a new automated insulin delivery system in young children with type 1 diabetes and their parents
77. Improvements in sleep quality after cognitive behavioral therapy for insomnia are associated with improved 2-hour post-load glucose
78. A pilot study of cognitive behavioral therapy for insomnia delivered in pregnancy
79. Self-help CBT-I in the management of insomnia symptoms associated with chronic disease in older adults: A randomized controlled trial
80. Cognitive behavioral therapy combined with Escitalopram in the treatment of type 2 diabetes comorbidities Clinical effects of depression (Chinese)
81. Effects of cognitive behavioral therapy on hypoglycemic fear and self-management behavior in patients with steroid diabetes (Chinese)
82. Effects of cognitive behavioral therapy on depression, anxiety, and quality of life in patients with type 1 diabetes (Chinese)
83. Effects of cognitive behavioral therapy on nutritional status, blood glucose and renal function in patients with diabetic nephropathy (Chinese)
84. Effects of nutritional diet combined with cognitive behavioral therapy on anxiety, depression, nutritional status and cognitive function in elderly patients with diabetic nephropathy (Chinese)
85. Effects of cognitive behavioral therapy in patients with type 2 diabetes combined with depression and anxiety. (Chinese)
86. Effects of group cognitive behavioral therapy on glycemic control in elderly patients with type 2 diabetes (Chinese)
87. Effects of cognitive behavioral therapy on quality of life in patients with type 2 diabetes (Chinese)
88. Effects of cognitive behavioral therapy on self-management efficacy and quality of life in community diabetic patients (Chinese)
89. Effects of cognitive behavioral therapy on negative emotions in diabetic patients treated with insulin pumps (Chinese)
90. Effects of cognitive behavioral therapy on blood glucose and self-management behavior in stroke patients with diabetes mellitus (Chinese)

91. Effects of cognitive behavioral therapy on out-of-hospital living matter placement and self-perceived burden in patients with diabetes mellitus and coronary heart disease (Chinese)
92. Application of cognitive behavioral therapy in health education for patients with type 2 diabetes (Chinese)
93. Effects of cognitive behavioral therapy on sleep quality of renal transplant recipients (Chinese)