Abstract 306678 Can mind-body exercises help to manage obesity?

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Obesity is a major public health challenge; more than one-third of U.S. adults are obese.¹ Obese individuals have an increased risk for developing heart disease, stroke, type 2 diabetes and certain types of cancer. The management of obesity includes lifestyle modifications such as increased physical activity. However, more than 80% of adults do not meet the physical activity recommendations.² Thus, there is a need to identify options that can attract those who are not inclined to follow conventional exercise strategies. In recent years mind-body exercises gained popularity. Although more than 18 million perform yoga and/or Tai Chi, and more than 10 million use Pilates in the U.S., we know little about the potential benefits of these exercises related to obesity.³The objective of this review is to determine whether mind-body interventions can help to reduce obesity and prevent or delay the onset of obesity-related medical conditions. Searches will be performed using PubMed, PsycInfo, and the Cochrane Database. Following mind-body exercises will be included: Alexander Technique, Feldenkrais, Gyrokinesis, NIA, Pilates, Qigong, Tai Chi, and Yoga. The search will be performed for articles published between January 2000 and May 2014. The review will report on design, frequency and duration of interventions, outcomes, attendance, and characteristics of participants. The results will indicate potential knowledge gaps and have an impact on future research directions.

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References

(1) Ogden, Carroll, et al. Prevalence of Obesity in the US, 2009-2010. U.S. CDC, National Center for Health Statistics Data Brief, January 2012: http://www.cdc.gov/nchs/data/databriefs/db82.pdf

(2) CDC, State Indicator Report on Physical Activity: http://www.cdc.gov/physicalactivity/downloads/PA_State_Indicator_Report_2010.pdf.

(3) ACSM. Schroeder. Mind/Body Exercise: What Is It? http://www.acsm.org/access-public-information/articles/2012/01/19/mind-body-exercise-what-is-it

(4) Chang MY, Yeh SC, Chu MC, Wu TM, Huang TH. Associations between Tai Chi Chung program, anxiety, and cardiovascular risk factors. *American journal of health promotion : AJHP.* Sep-Oct 2013;28(1):16-22.

(5) Chen KM, Tseng WS. Pilot-testing the effects of a newly-developed silver yoga exercise program for female seniors. *The journal of nursing research : JNR.* Mar 2008;16(1):37-46.

(6) Cheung C, Wyman JF, Resnick B, Savik K. Yoga for managing knee osteoarthritis in older women: a pilot randomized controlled trial. BMC complementary and alternative medicine. 2014;14:160

(7) Cohen BE, Chang AA, Grady D, Kanaya AM. Restorative yoga in adults with metabolic syndrome: a randomized, controlled pilot trial. *Metabolic syndrome and related disorders*. Sep 2008;6(3):223-229

(8) Dhananjai S, Sadashiv, Tiwari S, Dutt K, Kumar R. Reducing psychological distress and obesity through Yoga practice. International journal of yoga. Jan 2013;6(1):66-70.

(9) Elder C, Ritenbaugh C, Mist S, et al. Randomized trial of two mind-body interventions for weight-loss maintenance. J Altern Complement Med. Jan-Feb 2007;13(1):67-78.

(10) Fourie M, Gildenhuys GM, Shaw I, Shaw BS, Toriola AL, Goon DT. Effects of a mat Pilates programme on body composition in elderly women. *The West Indian medical journal.* Jul 2013;62(6):524-528

(11) Hegde SV, Adhikari P, Kotian S, Pinto VJ, D'Souza S, D'Souza V. Effect of 3-month yoga on oxidative stress in type 2 diabetes with or without complications: a controlled clinical trial. *Diabetes care*. Oct 2011;34(10):2208-2210.

(12) Hegde SV, Adhikari P, Shetty S, Manjrekar P, D'Souza V. Effect of community-based yoga intervention on oxidative stress and glycemic parameters in prediabetes: a randomized controlled trial. *Complementary therapies in medicine*. Dec 2013;21(6):571-576.

(13) Hsu WH, Hsu RW, Lin ZR, Fan CH. Effects of circuit exercise and Tai Chi on body composition in middle-aged and older women. Geriatrics & gerontology international. Mar 5 2014.

(14) Kosuri M, Sridhar GR. Yoga practice in diabetes improves physical and psychological outcomes. *Metabolic syndrome and related disorders*. Dec 2009;7(6):515-517.

(15) Littman AJ, Bertram LC, Ceballos R, et al. Randomized controlled pilot trial of yoga in overweight and obese breast cancer survivors: effects on quality of life and anthropometric measures. *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer.* Feb 2012;20(2):267-277.

(16) Liu X, Miller YD, Burton NW, Brown WJ. A preliminary study of the effects of Tai Chi and Qigong medical exercise on indicators of metabolic syndrome, glycaemic control, health-related quality of life, and psychological health in adults with elevated blood glucose. *British journal of sports medicine*. Aug 2010;44(10):704-709.

(17) McCaffrey R, Ruknui P, Hatthakit U, Kasetsomboon P. The effects of yoga on hypertensive persons in Thailand. *Holistic nursing practice*. Jul-Aug 2005;19(4):173-180.

(18) McDermott KA, Rao MR, Nagarathna R, et al. A yoga intervention for type 2 diabetes risk reduction: a pilot randomized controlled trial. BMC complementary and alternative medicine. 2014;14:212.

(19) Rogers K, Gibson AL. Eight-week traditional mat Pilates training-program effects on adult fitness characteristics. *Research quarterly for exercise and sport.* Sep 2009;80(3):569-574.

(20) Seo DY, Lee S, Figueroa A, et al. Yoga training improves metabolic parameters in obese boys. The Korean journal of physiology & pharmacology : official journal of the Korean Physiological Society and the Korean Society of Pharmacology. Jun 2012;16(3):175-180.

(21) Telles S, Sharma SK, Yadav A, Singh N, Balkrishna A. A comparative controlled trial comparing the effects of yoga and walking for overweight and obese adults. *Medical science monitor : international medical journal of experimental and clinical research*. 2014;20:894-904.

(22) Tsai YK, Chen HH, Lin IH, Yeh ML. Qigong improving physical status in middle-aged women. Western journal of nursing research. Dec 2008;30(8):915-927.

(23) Tsang T, Orr R, Lam P, Comino E, Singh MF. Effects of Tai Chi on glucose homeostasis and insulin sensitivity in older adults with type 2 diabetes: a randomised double-blind sham-exercise-controlled trial. *Age and ageing*. Jan 2008;37(1):64-71.

(24) Tunar M, Ozen S, Goksen D, Asar G, Bediz CS, Darcan S. The effects of Pilates on metabolic control and physical performance in adolescents with type 1 diabetes mellitus. *Journal of diabetes and its complications.* Jul-Aug 2012;26(4):348-351.

(25) Yang K, Bernardo LM, Sereika SM, Conroy MB, Balk J, Burke LE. Utilization of 3-month yoga program for adults at high risk for type 2 diabetes: a pilot study. *Evidence-based complementary and alternative medicine : eCAM.* 2011;2011:257891.

(26) Yang K. A review of yoga programs for four leading risk factors of chronic diseases. *Evidence-based complementary and alternative medicine :* eCAM. Dec 2007;4(4):487-491.