

PMD	First Author	Title	Year	Study Type	CVD	RF by CO	Study Origin	Setting	Search Range	Data Sources	Study Eligibility Criteria	Number of Studies	Main Study Objective	Study Pop. (N)	Target Population	Patient Characteristics	Study Characteristics	Interv. Type	Specific Intervention Examined	Observational Relationship Assessed	Outcomes Measured	Treatment Effect and Statistical Significance	Main Reported Findings by Critical Question	Limitations of Studies Reviewed	Quality of MA
16953014	Collins CE	Measuring effectiveness of dietary interventions in child obesity: a systematic review of randomized trials	2006	MA	None	Q10 (RF8)	Australia	Don't Know/NR	1975-2003 (Additional author search conducted in 2004)	CINAHL MEDLINE PREMEDLINE DARE Cochrane EMBASE Austrom Current Concepts Dissertation Abstracts Hand searches of US, UK, and Australian government reports Reference lists Article bibliographies	RCTs evaluating the effectiveness of nutrition or dietary interventions on treating overweight or obesity in children or adolescents Targeted overweight or obese children/adolescents < 18 yr Subjects were free-living patients, in-patients in clinical obesity units, or students attending community programs, one-off programs, camps, or schools Reported at least 1 of the following primary outcomes: percentile of BMI (kg/m ²); BMI z score; percentage of children overweight for age; waist measurement; skin folds; percentage of body fat; or percentage of lean body mass Exclusions: Studies not reporting a weight-related variable as a primary outcome Studies assessed as being of poor methodological quality	37 48 articles reviewing 37 trials 17 included in Forest plot of the standardized effects 8 included in MA 4 included in MA assessing follow-up results	Assess the effectiveness of dietary treatment for obese children and report details of dietary interventions	2,262	Pediatric/Young Adults	NR	Intervention length range: 6 wk - 18 mo Follow-up length range: 1 mo - 10 yr	Behavioral	Dietary intervention in isolation Dietary modification intervention in combination with lifestyle modifications and/or psychological therapies Physical activity Dietary modification with standard control (i.e., no treatment) Dietary modification both as part of intervention and/or control with various combinations of lifestyle modifications and psychological components	N/A	Weight	The 8 studies including interventions that contained a dietary component were effective in achieving relative weight loss in overweight/obese children and adolescents (pooled standardized mean difference: -1.62, 95% CI: -2.40 to -1.23) The 4 studies with follow-up data suggest a diminishing effect of the intervention over time (pooled standardized mean difference: -0.64, 95% CI: -0.89 to -0.39)	Q10. Interventions that contain a dietary component are effective in achieving relative weight loss in overweight/obese children and adolescents Not possible to evaluate the effectiveness of dietary treatment for childhood obesity because of the lack of high-quality studies and heterogeneity of designs, treatment combinations, outcome measures, and follow-up Diet was only one of several components of the interventions Methods of randomization was described in a minority of studies Allocation concealment was unclear in 24 studies and not used in 2 studies Number of participants in studies was generally low Inadequately described details of dietary interventions Quality of most studies was poor in terms of assessing changes in dietary intake in response to the intervention at either the individual or group level Small sample sizes in many trials	Good	
17070638	Young KM	A meta-analysis of family-behavioral weight-loss treatments for children	2007	MA	None	Q10 (RF8)	USA	Don't Know/NR	1967-present (PsychINFO, MEDLINE) 1982-present (CINAHL)	PsychINFO MEDLINE CINAHL	5-12 yr old children as targets of intervention Studies evaluating programs with the primary goal of child weight-loss Behavioral treatments including the following methods: psychoeducation, stimulus control, developing behavioral awareness, identifying problematic behavior, modifying current behavior, and maintaining behavior change Family involvement in intervention defined as having a minimum of 1 parent/guardian involved in at least 1 aspect of treatment Exclusions: Duplicate titles from multiple searches Non-English language Dissertations or reviews Studies with adult-only samples Studies that explicitly targeted weight-maintenance or prevention of obesity rather than weight loss	16	Examine the relative benefits of adding a family component to childhood weight-loss interventions	666	Parental/Family/Caregiver	Studies had inclusion criteria consisting of age restrictions, cutoffs for being classified as overweight, and no current child involvement in other forms of treatment for his/her weight Mean initial treatment period (SD): 11.56 wk (6.27) Mean weekly meeting time (SD): 78.57 min (16.10) Inclusion of a maintenance period during which participants received monthly or bi-monthly treatments for an extended period: 6 studies Reported data for at least 1 follow-up: 9 studies Reported data for a second follow-up: 3 studies	Behavioral	Established child cognitive-behavioral programs (e.g., four-pronged stimulus control Cues, Traffic Light Diet) Studies included combinations of 3 types of treatment groups: family-behavioral, other treatment, and control Role of parents varied; in some conditions, parents were themselves being treated for obesity concurrently with children, while in other conditions they were being trained to act as the child's "helper"	N/A	Mean effect size for percent overweight Mean effect size for weight [lb] Effect size direction for BMIz-BMI	Using percent overweight, a large and significant mean effect size of -0.89 (95% CI=-1.08 to -0.73) for the family-behavioral treatments, (95% CI=-1.08 to -0.73). The average effect size for the other treatment groups was of moderate magnitude (d=-0.52, SD=0.41, 95% CI=-1.49 to 0.44), but because the CI contained zero, the effect size was not statistically reliable. The average effect size for the control groups was of small magnitude and non-significant (d=-0.18, SD=0.47, 95% CI=-0.75 to 0.39). Using pounds, the effect size for the family-behavioral treatment groups was of large magnitude, significant (d=-0.81, SD=0.46, 95% CI=-1.10 to -0.52) and homogeneous (Q(3)=9.74, p=0.05). The effect size for the other treatment groups was of small magnitude, nonsignificant (d=-0.35, SD=0.54, 95% CI=-1.30 to 0.42), and homogeneous (Q(1)=0.62, p=0.43). The effect size for the control groups was of moderate magnitude in the positive direction (d=0.46, SD=0.27, 95% CI=-0.65 to 0.47), non-significant, and homogeneous (Q(1)=0.24, p=1.36). Given the dearth of studies that used BMI as an outcome variable, individual treatment outcomes were examined rather than computing mean effect sizes. One family-behavioral treatment group reported a small negative effect on BMI (i.e., participants lost weight), while the other reported a small positive effect (i.e., the participants gained weight). The single z-BMI study yielded a large negative effect.	Q10. Family-behavioral treatments appear to be an effective strategy for weight loss in children; family-behavioral treatments produce large and reliable effects, whereas other treatments and control conditions did not yield large or statistically reliable outcomes	N/A	Good	
17510091	Wang Y	The obesity epidemic in the United States—gender, age, socioeconomic, racial/ethnic, and geographic characteristics: a systematic review and meta-regression analysis	2007	MA	None	Q5 (RF8) Q6 (RF2, RF3, RF8)	USA	Don't Know/NR	1990-2006	PubMed	English language Studies that quantitatively assessed obesity and/or overweight prevalence in the US	More than 80 studies included in literature review; approximately 20 studies used in quantitative meta-analysis	Provide a comprehensive description of the current obesity epidemic, time trends, and disparities across gender, age, SES, and racial/ethnic groups and in geographic regions, as well as the manner in which disparities have changed over time	NR	Pediatric/Young Adults	NR	Most of the findings were based on nationally representative data; includes studies reporting data from NHANES, BRFSS, Youth Risk Behavior Surveillance System, and National Longitudinal Survey of Adolescent Health	None	N/A	Overweight and at risk for overweight in children and adolescents of different ages, race/ethnicities, SES groups, and geographic areas over time Prevalence of at risk for overweight (BMI ≥ 85 th percentile) Prevalence of overweight (BMI ≥ 95 th percentile) Change in BMI	In 2003-2004, more than one-third (~35%) of older US children and adolescents aged 6-19 yr were at risk for overweight or overweight, and almost 17% were overweight; the figures were lower for young children aged 2-5 yr (26.2% and 13.8%, respectively). Prevalence was similar among older children and adolescents. The overall national average prevalence is similar among boys and girls; however, large gender differences exist in some racial/ethnic groups. In 1999-2000 and 2003-2004, the prevalence of both outcomes was higher among non-Hispanic Black and Mexican-American female children and adolescents compared with non-Hispanic Black and Mexican-American males and non-Hispanic White males and females. In all age groups, the prevalence of overweight had increased since the 1960s. Between 1976-1980 and 2003-2004, the average annual rate of increase was approximately 0.5 % for children and adolescents aged 2 yr or older. Between 1971-1974 and 1999-2002, on average, US children's and adolescents' BMI increased by 1.4 points and by 2 points among adolescent boys and girls, respectively. SES was inversely related to prevalence of obesity among Whites but not among African Americans or Hispanics. NHANES data show considerable racial/ethnic disparities in obesity. Non-Hispanic White children and adolescents had the lowest prevalence compared with their non-Hispanic Black and Mexican-American counterparts. For example, combined prevalence was 28.2%, 35.4%, and 39.9% among those aged 6-19 yr in the 3 racial/ethnic groups, respectively. The Add Health study, 1995-1996 data show that SES was inversely related to prevalence of obesity among Whites but not among African Americans or Hispanics.	Q5. There are considerable racial and ethnic disparities in obesity. Non-Hispanic White children and adolescents had the lowest prevalence compared with their non-Hispanic Black and Mexican-American counterparts. In children aged 6-11 yr, non-Hispanic Black girls and Mexican-American boys have by far the fastest annual increase in the prevalence of overweight. SES was inversely related to prevalence of obesity among Whites but not among African Americans or Hispanics. Few studies have examined the regional differences in overweight among US children and adolescents. Q6. In 2003-2004, more than one-third (~35%) of older US children and adolescents aged 6-19 yr were at risk for overweight or overweight, and almost 17% were overweight; the figures were lower for young children aged 2-5 yr (26.2% and 13.8%, respectively). Prevalence was similar among older children and adolescents. The overall national average prevalence is similar among boys and girls; however, large gender differences exist in some racial/ethnic groups. In 1999-2000 and 2003-2004, the prevalence of both outcomes showed a larger gender gap among non-Hispanic Blacks and Mexican-American children and adolescents compared with non-Hispanic Whites. Between 1971-1974 and 1999-2002, on average, US children's and adolescents' BMI increased by 1.4 points and by 2 points among adolescent boys and girls, respectively	Information on self-reported weight and height has been widely used in epidemiologic studies, including some large, national monitoring survey programs such as BRFSS. Although some studies have suggested good agreement between self-reported and measured weight and height, others show considerable reporting bias. Pediatric analysis based on measured results from NHANES. Discrepancies in classifications of obesity/overweight may affect estimates of prevalence and trends	Good	
17510091	Wang Y	The obesity epidemic in the United States—gender, age, socioeconomic, racial/ethnic, and geographic characteristics: a systematic review and meta-regression analysis	2007	MA	None	Q10 (RF8)	USA	Don't Know/NR	1990-2006	PubMed	English language Studies that quantitatively assessed obesity and/or overweight prevalence in the US	More than 80 studies included in literature review; approximately 20 studies used in quantitative meta-analysis	Provide a comprehensive description of the current obesity epidemic, time trends, and disparities across gender, age, SES, and racial/ethnic groups and in geographic regions, as well as the manner in which disparities have changed over time	NR	Pediatric/Young Adults	NR	Most of the findings were based on nationally representative data; includes studies reporting data from NHANES, BRFSS, Youth Risk Behavior Surveillance System, and National Longitudinal Survey of Adolescent Health	None	N/A	Overweight and at risk for overweight in children and adolescents of different ages, race/ethnicities, SES groups, and geographic areas over time Prevalence of at risk for overweight (BMI ≥ 85 th percentile) Prevalence of overweight (BMI ≥ 95 th percentile) Change in BMI	In 2003-2004, more than one-third (~35%) of older US children and adolescents aged 6-19 yr were at risk for overweight or overweight, and almost 17% were overweight; the figures were lower for young children aged 2-5 yr (26.2% and 13.8%, respectively). Prevalence was similar among older children and adolescents. The overall national average prevalence is similar among boys and girls; however, large gender differences exist in some racial/ethnic groups. In 1999-2000 and 2003-2004, the prevalence of both outcomes showed a larger gender gap among non-Hispanic Blacks and Mexican-American children and adolescents compared with non-Hispanic Whites. Between 1971-1974 and 1999-2002, on average, US children's and adolescents' BMI increased by 1.4 points and by 2 points among adolescent boys and girls, respectively	Q10. A large number of studies have shown the tracking of BMI and obesity status from childhood to adulthood. It is estimated that about one-third of these preschool children and about one-half of obese school-age children become obese adults, although findings from different studies varied considerably			
17845100	Wilfong DE	Lifestyle interventions in the treatment of childhood overweight: a meta-analytic review of randomized controlled trials	2007	MA	None	Q10 (RF8)	USA	Clinical	First available year - Aug 2005	Medline PsychINFO Cochrane Controlled Trials Register	RCTs of lifestyle interventions focused on weight loss or weight control for youth aged 19 yr or younger that compared an active treatment with either a wait-list/no-treatment control or with an information/education-only control through August, 2005. Active treatment is defined as any combination of diet, physical activity and/or behavioral treatment. Study results reported in English. Treatment duration of at least 4 weeks. Participants overweight at baseline	14 Studies	Evaluate the efficacy of pediatric weight loss treatment.	627 (14 RCTs)	Pediatric/Young Adults	Average age: 11.5 yr Male: 34.8% Female: 65.2% Age ranges: 2-19 yr represented in 7 studies. Only 2-12 yr represented in 6 studies.	Treatment duration range from 9 weeks to 77 weeks. Average sample size per study: 35.2 participants.	Behavioral	Active treatment interventions for overweight children.	N/A	Weight % Overweight BMI	For the 6 RCTs that used BMI as an outcome measure, the weighted mean effect sizes within a fixed-effects model at both end of treatment (p = .75, p < .001) and follow-up (p = .60, p < .001) indicated positive effects of lifestyle interventions on weight outcomes. For comparisons involving an active lifestyle intervention and a control condition in which information/education-only was delivered, the weighted mean effect sizes within a fixed-effects model at both end of treatment (p = .48, p < .001) and follow-up (p = .91, p < .001) were significant, indicating positive effects of the lifestyle treatments on weight outcomes. Mean overall effect size for all studies combined was 0.91(CI)0.32,1.50). For the 8 RCTs that used % overweight as an outcome measure, the resulting decreases were 8.2% and 8.9%. The average participant receiving no treatment or information/education only continued to gain wt. In the smaller number of studies that provided later follow-up, treatment effects remained significant but there was a decline in magnitude of the effects over time vs both comparison groups.	Q10. The meta-analysis found that active lifestyle interventions produce significant treatment effects in overweight children when compared with no-treatment/wait-list control groups. Limited role for moderators in this analysis, and these could have contributed to weight loss. May have underestimated the breadth of the effectiveness of lifestyle interventions. Insufficiencies in reporting of the design, implementation, and analysis of studies were present. All of the included studies conducted complete analyses rather than intent-to-treat analyses that can result in larger effect sizes. Patient and study demographic features were infrequently reported. Difficult to empirically compare the safety and acceptability of lifestyle interventions to other interventions. Possibility of a publication bias.	Good	