

Obesity Prevention and Control: Multicomponent Provider Interventions with Patient Interventions

Summary Evidence Table

Adult Populations

Study	Intervention and Comparison	Study Population	Effect measure	Reported Baseline and Follow-Up	Reported effect	Follow-up time												
<p>Author (year): Laws et al. (2004)</p> <p>Study Period: 2003-2004</p> <p>Study Design: Time series</p> <p>Design Suitability: Moderate</p> <p>Quality of Execution: Fair</p>	<p>Location: United Kingdom (Aberdeen, Bath, Birmingham, Solihull, Glasgow, Hammersmith, Leeds, Luton)</p> <p>Components: Practice-based training and support includes for practice nurses 6 to 8 hours on core competencies for evidence based weight management, Follow-up with weight management advisors for 6 months and for General practitioner trained 1 hour on stages of change, confidence and the benefits of a 5-10% weight loss Patient intervention consisted of screening and treatment pathways incorporating evidence-based approaches, anti-obesity medications, and weight maintenance strategies</p>	<p>80 clinical practices baseline =1549 obese patients age 18-75 years)</p> <p>3 mo =728 patients 6 mo=492 patients 12 mo=445 patients</p>	<p>Mean change in body Weight (kg)</p> <p>>5% wt loss – all patients (%)</p> <p>>5% wt loss – patients with data (%)</p>	<table border="1"> <thead> <tr> <th>3 mo</th> <th>6mo</th> <th>12mo</th> </tr> </thead> <tbody> <tr> <td>-3.3</td> <td>-4.2</td> <td>-3.2</td> </tr> <tr> <td>13.7</td> <td>15.3</td> <td>16.2</td> </tr> <tr> <td>26</td> <td>30.2</td> <td>32.6</td> </tr> </tbody> </table>	3 mo	6mo	12mo	-3.3	-4.2	-3.2	13.7	15.3	16.2	26	30.2	32.6	-3.2	12 months
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<p>Author (year): Ockene et al. (1999)</p> <p>Study Period: not reported</p>	<p>Location: Worcester, MA</p> <p>Components: Nutrition counseling alone: Two 2.5 hour sessions in small group and 30 min individual sessions (role play). Focus on</p>	<p>45 primary care internists (46 available, 1 declined) randomized into 3 groups.</p>	<p>Weight (kg) (direct measure)</p> <p>Nutri counseling</p> <p>Nutri counseling + Control</p> <p>HDL</p>	<table border="1"> <tbody> <tr> <td>12 month</td> </tr> <tr> <td>-1.0</td> </tr> <tr> <td>-2.3</td> </tr> <tr> <td>0</td> </tr> </tbody> </table>	12 month	-1.0	-2.3	0	-1.0 -2.3	12 months								
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Summary Evidence Table – Obesity: Multicomponent Provider Interventions with Patient Intervention

Study	Intervention and Comparison	Study Population	Effect measure	Reported Baseline and Follow-Up	Reported effect	Follow-up time
<p>Study Design: Group RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p>	<p>counseling. Tools given to practitioners. Nutrition counseling +: same as above plus physicians received office support</p> <p>Comparison: Usual care</p>	<p>1162 patients recruited with total blood cholesterol levels in the highest 25th percentile age 20-65 years; 550 completed weight at 1 year 161 control 192 nutri alone 197 nutri +</p>	<p>Nutri counseling Nutri counseling + Control</p> <p>LDL Nutri counseling Nutri counseling + Control</p> <p>Sat Fat Nutri counseling Nutri counseling + Control</p> <p>Total Cholesterol Nutri counseling Nutri counseling + Control</p> <p>Total Chol: HDL Nutri counseling Nutri counseling + Control</p> <p>Total Fat Nutri counseling Nutri counseling + Control</p> <p>Triglyceride Nutri counseling Nutri counseling + Control</p>	<p>0.01 0.01 -0.02</p> <p>0.02 -0.11 -0.01</p> <p>-0.04 -1.10 0</p> <p>0.05 -0.10 0.03</p> <p>0.1 -0.1 0.1</p> <p>-1.0 -2.3 -0.7</p> <p>0.06 -0.01 0.12</p>	<p>0.02 -0.13</p>	

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<p>Author (year): Vinicor et al. (1987)</p> <p>Study Period: not reported</p> <p>Study Design: Group RCT</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p>	<p>Location: Indianapolis, IN</p> <p>Components: Patient Education: patients receive education focused on target behaviors essential for self-management of diabetes Physician Education: physicians receive intensive education program Patient and Physician Education: Patients and physicians receive Diabetes Research and Training Center -initiated training programs</p> <p>Comparison: Usual care (diabetes education routinely available in the clinic)</p>	<p>3-4 resident teams and 532 diabetic patients randomized from 1 clinic</p> <table border="1" data-bbox="783 410 1026 524"> <thead> <tr> <th>Group</th> <th>N₀</th> <th>N₁</th> </tr> </thead> <tbody> <tr> <td>Contr</td> <td>129</td> <td>68</td> </tr> <tr> <td>Phy</td> <td>130</td> <td>62</td> </tr> <tr> <td>Pat&Phy</td> <td>133</td> <td>133</td> </tr> </tbody> </table>	Group	N ₀	N ₁	Contr	129	68	Phy	130	62	Pat&Phy	133	133	<p>Diastolic Blood Pressure (mmHg)</p> <p>Control Physican Only Patient & Physician</p> <p>Systolic Blood Pressure (mmHg)</p> <p>Control Physican Only Patient & Physician</p> <p>Fasting Glucose (mg/dl)</p> <p>Control Physican Only Patient & Physician</p> <p>Glycosylated Hemoglobin (Hb A1C)</p> <p>Control Physican Only Patient & Physician</p> <p>Weight (lbs, direct measure)</p> <p>Control Physican Only Patient & Physician</p>	<table border="1" data-bbox="1367 254 1669 1073"> <thead> <tr> <th></th> <th>Baseline</th> <th>26m</th> </tr> </thead> <tbody> <tr> <td>Diastolic Blood Pressure (mmHg)</td> <td></td> <td></td> </tr> <tr> <td>Control</td> <td>81.4</td> <td>85.2</td> </tr> <tr> <td>Physican Only</td> <td>83.1</td> <td>83.4</td> </tr> <tr> <td>Patient & Physician</td> <td>81.8</td> <td>81.3</td> </tr> <tr> <td>Systolic Blood Pressure (mmHg)</td> <td></td> <td></td> </tr> <tr> <td>Control</td> <td>137.2</td> <td>144.9</td> </tr> <tr> <td>Physican Only</td> <td>142.5</td> <td>146.4</td> </tr> <tr> <td>Patient & Physician</td> <td>140.4</td> <td>145.0</td> </tr> <tr> <td>Fasting Glucose (mg/dl)</td> <td></td> <td></td> </tr> <tr> <td>Control</td> <td>201.1</td> <td>208.7</td> </tr> <tr> <td>Physican Only</td> <td>209.6</td> <td>196.5</td> </tr> <tr> <td>Patient & Physician</td> <td>229.2</td> <td>190.2</td> </tr> <tr> <td>Glycosylated Hemoglobin (Hb A1C)</td> <td></td> <td></td> </tr> <tr> <td>Control</td> <td>10.19</td> <td>10.74</td> </tr> <tr> <td>Physican Only</td> <td>10.51</td> <td>10.64</td> </tr> <tr> <td>Patient & Physician</td> <td>11.34</td> <td>10.42</td> </tr> <tr> <td>Weight (lbs, direct measure)</td> <td></td> <td></td> </tr> <tr> <td>Control</td> <td>185.3</td> <td>186.4</td> </tr> <tr> <td>Physican Only</td> <td>188.8</td> <td>185.4</td> </tr> <tr> <td>Patient & Physician</td> <td>193.8</td> <td>189.1</td> </tr> </tbody> </table>		Baseline	26m	Diastolic Blood Pressure (mmHg)			Control	81.4	85.2	Physican Only	83.1	83.4	Patient & Physician	81.8	81.3	Systolic Blood Pressure (mmHg)			Control	137.2	144.9	Physican Only	142.5	146.4	Patient & Physician	140.4	145.0	Fasting Glucose (mg/dl)			Control	201.1	208.7	Physican Only	209.6	196.5	Patient & Physician	229.2	190.2	Glycosylated Hemoglobin (Hb A1C)			Control	10.19	10.74	Physican Only	10.51	10.64	Patient & Physician	11.34	10.42	Weight (lbs, direct measure)			Control	185.3	186.4	Physican Only	188.8	185.4	Patient & Physician	193.8	189.1	<p>3.8 0.3 -0.5</p> <p>7.7 3.9 4.6</p> <p>7.6 -13.1 -39.0</p> <p>0.55 0.13 -0.92</p> <p>1.1 -3.4 -4.7</p>	<p>26 months</p>
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Pediatric Populations

Study	Intervention and Comparison	Study Population	Effect measure	Reported Baseline and Follow-Up			Reported effect	Follow-up time											
				Baseline	9 mo	15 mo													
Author (year): McCallum et al. (2006) Study Period: April to Dec 2002 Study Design: RCT Design Suitability: Greatest Quality of Execution: Good	Location: Melbourne, Australia Components: General practitioner received standardized education package on delivery of the intervention, didactic and reflective teaching on obesity, and brief solution-focused therapy techniques in 3 group sessions Intervention was general practitioner-led family consultation using brief solution-focused technique to set and record appropriate healthy lifestyle goals targeting change in nutrition, physical activity, and sedentary behavior	29 General practices; 163 overweight/mildly obese children age 5-9 years <table border="1"> <tr> <td>Group</td> <td>N₀</td> <td>N₁</td> <td>N₂</td> </tr> <tr> <td>Inter</td> <td>82</td> <td>73</td> <td>70</td> </tr> <tr> <td>Cont</td> <td>81</td> <td>80</td> <td>76</td> </tr> </table>	Group	N ₀	N ₁	N ₂	Inter	82	73	70	Cont	81	80	76	BMI (direct measure)				15 months
			Group	N ₀	N ₁	N ₂													
			Inter	82	73	70													
			Cont	81	80	76													
			Intervention	20.5	21.0	21.7													
			Control	20.0	20.8	21.2													
			Change in BMI z-score																
			Intervention	2.0	1.96	2.0													
			Control	1.9	1.93	1.92													
			Change in % time in physical activity																
Intervention	39.7	42.9	39.2																
Control	38.1	36.1	35.2																
Change in daily activity scores																			
Intervention	3.3	3.3	3.3																
Control	3.3	3.2	3.2																
Change in nutrition scores																			
Intervention	16.3	19.0	18.7																
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Absolute effect size is calculated unless otherwise noted.

Abbreviations

CI, confidence interval

BMI, Body Mass Index

DBP, diastolic blood pressure

HDL, high density lipoprotein

kJ, kilojoule

LDL, low density lipoprotein

N₀, sample size at baseline

N₁, sample size at time 1

N₂, sample size at time 2

RCT, randomized controlled trial

RD, registered dietitian

SBP systolic blood pressure

TG, triglyceride

VLCD, very low calorie diet