

Table S2. Summary of the studies conducted among the population with metabolic syndrome ($n = 7$).

	Study / Country / Design	Participants	Age (years)	MetS criteria	Intervention provider / Setting	Study duration (months)	Intervention	Main findings
1	Bo et al. [16] Italy RCT	335 adults <i>169 intervention</i> <i>166 control</i>	Intervention: M=55.7 (SD=5.7) Control: M=55.7 (SD=5.6)	NCEP ATP III	Multidisciplinary team Primary / community clinic	12	Lifestyle intervention (diet and physical activity) program (5 sessions) with team-based approach and interactive group sessions. <i>Control: Standard counselling</i>	Significant reduction in prevalence of MetS, central obesity, hypertriglyceridemia and incidence of diabetes in intervention group at 12 months.
2	Ma et al. [17,18] United States RCT	241 adults <i>79 coach-led</i> <i>81 DVD</i> <i>81 control</i>	M=52.9 (SD=10.6)	IDF	Multidisciplinary team (Registered dietitian, fitness instructor, lifestyle coach) Primary care clinic	3	An adapted, 12-session DPP lifestyle intervention curriculum, Group Lifestyle Balance (GLB) TM . The program was delivered face-to-face in 12 weekly highly interactive classes to coach-led intervention participants, or via a home-based DVD. Theory: Social Cognitive Theory and the Transtheoretical Model of Behaviour Change <i>Control: Usual care</i>	Greatest reduction in BMI seen in coach-led group. 35.9% participants in coach-led group achieved the 7% DPP-based weight loss. Coach-led and DVD groups achieved greater net improvement in WC and FBG.
3	Pettman et al. [19,20] Australia RCT	153 obese adults <i>103 intervention</i> <i>50 control</i>	M=45	IDF	Study coordinator with nutrition background, peer leader Community	4	“Shape Up for Life” - structured but non-prescriptive lifestyle education program that was based on the Australian national diet and physical activity guidelines, developed based on Stanford’s Chronic Disease Self- Management Program (CDSMP). Theory: Self-efficacy theory <i>Control: Usual care</i>	Greater improvements in body composition (weight, BMI, body fat mass & percentage, abdominal fat mass, WC), blood pressure (SBP, DBP, mean arterial BP), total cholesterol, LDL-C, physical work capacity, handgrip strength and dietary glycaemic index in intervention group. Program recorded high retention rate.
4	Greer et al. [26] United States Pre-post	22 uninsured adult patients	Osceola Clinic group: M=57.3 Sumter	NCEP ATP III	Physician Community clinics	10 weeks	Cooperative Health Care Clinics (CHCC) module (Lifestyle, Exercise, Attitude, Relationships, and Nutrition (LEARN) Program for Weight Control curriculum) - a weight management program utilizing a therapeutic lifestyle	Significant improvement in WC and knowledge base. High patient satisfaction score.

			County group: M=54.2				change approach, addressing nutrition, physical activity, lifestyle changes, goal setting, recording, and helpful devices to achieve goals in an interactive format. Facilitated group discussions and peer learning were encouraged during and after the presentation. Patients were encouraged to share their experiences and problem-solving strategies.	
5	Shahar et al. [21,22] Malaysia RCT	47 older adults of Malay ethnicity <i>24 intervention</i> <i>23 control</i>	M=66.5 (SD=4.3)	NCEP ATP III	Dietitian Community	6	Nutrition education via group counselling sessions, talks, and cooking and exercise demonstrations using a specifically developed healthy aging package. <i>Control: Standard care</i>	Improvements in WC in older women and total cholesterol levels in older men were seen in the intervention group.
6	Chang et al. [23] Taiwan RCT	131 metabolically abnormal obese individuals <i>65 intervention</i> <i>66 control</i>	M=55.2 (SD=14.2)	NCEP ATP III	Multidisciplinary team (Nurse, exercise experts), community volunteers Community	6	Community-based physical activity program including providing of exercise environments, exercise skills and volunteers' reminding. <i>Control: Provided environment and skills.</i>	Greater improvement in HDL-C, body weight, BMI, WC, BP and FBG in intervention group.
7	Mahadzir et al. [28,29] Malaysia Pre-post	48 adults	Md=46 (IQR=11)	Harmoniz ed	Nutritionist, peer educators Community	3	An evidence-based and community-specific nutrition and lifestyle behaviour peer support program. Theory: Health Belief Model	Overall increases in carbohydrate intake, glycaemic load, physical activity, duration of sleeping, and reductions in total energy and fat. Marginal improvements in WC, HDL-C, FBG, BMI, TG, SBP.

M=Mean; SD = Standard deviation; Md = median; IQR = interquartile range; MetS = metabolic syndrome; BMI = body mass index; WC = waist circumference; TG = triglyceride; HDL-C = high density lipoprotein cholesterol; FBG = fasting blood glucose; SBP = systolic blood pressure; DBP = diastolic blood pressure