

Annex 17A. Examples of Self-Management Interventions for Cardiometabolic Conditions in LMICs and the Evaluation of Their Effects

Supplementary material for: Joshi, R., A.P. Kengne, F. Hersch, M.B. Weber, H. McGuire, and A. Patel. 2017. “Innovations in Community-Based Health Care for Cardiometabolic Diseases” In *Cardiovascular, Respiratory, and Related Disorders* edited by D Prabhakaran, S Anand, TA Gaziano, J-C Mbanya, Y Wu, and R Nugent. Volume 5 of *Disease Control Priorities, third edition*. Washington, DC: World Bank.

Reference/ country	Population	Design	Intervention	Duration of follow- up	Primary outcome	Effect size	Cost - effective ness						
								Setting	Content	Format	Mode	Tutors	Group/ individual
Thankappan (Thankappan KR, Mini GK et al. 2013), India	224 adults with type 2 diabetes	Parallel group RCT	Referral diabetes clinic	Smoking cessation	Counselling (3 sessions), Printed support materials	Face-to- face	Doctors, Diabetes educators	Individual	5'A's & 5 'R's	6 months	Quit rate (7-day smoking abstinence)	Nearly nine times higher quitting rate	Not reported
											Harm reduction (reduction of the number of cigarettes smoked per day >50% of baseline use)	Non- significant effect	Not reported
Mash (Mash B, Levitt N et al. 2012), South Africa	34 public health diabetes clinics	Pragmatic cluster RCT	Primary care	Understand- ing diabetes, lifestyle, medication , complica- tions	Guiding style education (4 sessions)	Face-to- face	Health promotion officers	Group	Motivational interviewing	12 months	diabetes self-care activities, 5% weight loss, 1% reduction in HbA1c	No effect on diabetes self-care activities, body weight and HbA1c;; Significant reduction of systolic (and diastolic) BP by 4.6 (3.3) mm Hg	Not reported

Céspedes (Céspedes J, Briceno G et al. 2013), Columbia	1216 preschool children, 928 parents, 120 teachers	Parallel group RCT	Preschool	Health eating and active lifestyles	Classroom educational and play activities, workshops, written materials	Face-to-face	Not specified	Both	Social cognitive theory and the trans-theoretical model of health promotion	18 months	Mean change in knowledge, attitudes and habits related to healthy eating and living, and active lifestyle	Significant increase of the weighted score of knowledge, attitude and habits among children (3.9 units), parents (4.1) and teachers (5.4) after 5 months	Not reported
Fornari (Fornari LS, Giuliano I et al. 2013) Brazil	197 school age children, 323 parents	Parallel group RCT	School	CVD prevention education	Classroom educational and play activities	Face-to-face	Team of nurses, physical education teachers, nutritionists, physiotherapists, psychologists and teachers	Group	Not specified	10 months	CVD risk profile of children, CVD risk profile of parents	Significant 0.8% reduction of the mean Framingham CVD risk score; and 91% reduction of the number of parents with high Framingham risk score (>10%) in the intervention group	Not reported
Ribeiro (Ribeiro AG, Ribeiro SM)	28 women with	Parallel group RCT	Primary care, homes	Hypertension and dietary	Monthly health education	Face-to-face	Not specified	Group	Not specified	6 months	Adherence to nutritional	Significant reduction in the	Not reported

et al. 2011), Brazil	hypertension			treatment measures	workshops (5), with or without Family orientation home visits						guidelines; Knowledge on control and risk of hypertension	consumption of risk foods, oil, sugar and decreased body mass index, waist circumference, systolic blood pressure and glycemia	
Faria (Faria HT, Veras VS et al. 2013), Brazil	51 patients with type 2 diabetes	Before-after	Primary care	Pathophysiology, treatment, Lifestyle, foot care, self-monitoring, hypoglycemia, chronic complications, special situations, family support	Classroom interactive lectures (20 sessions), Individualised meeting, Printed hand-outs	Face-to-face,	Team of nurses, nutritionists, psychologists, physical educator, undergraduate	Both	None	5 months	Self-perception of health Health related quality of life	Improvement of the mean perceived general health score from 64.0 to 70.6 (on a scale of 0 to 100) following the intervention	Not reported
Tan (Tan MY, Magarey JM et al. 2011), Malaysia	182 diabetic patients	Parallel group RCT	Hospital	structured education programme based on self-efficacy to enhance	Structured individual education (monthly), telephone follow-up, printed material	Face-to-face	Not specified	Individual	Social cognitive theory	3 months	Self-care practice, HbA1c, diabetes knowledge	Increased weekly sessions of self-monitor of blood glucose by four times, increased	Not reported

self-care practices.

adherence to medication (7%), improved diabetes knowledge score by 2.6 points, better glycaemic control

Alhalaiqa (Alhalaiqa F, Deane KH et al. 2012), Jordan	136 non-compliant hypertensive patients	Parallel group RCT	Hospital & homes	Adherence therapy	20 min sessions (7)	Face-to-face	Nurses	Individual	Not specified	11 weeks	Change in systolic blood pressure	Significant drop in systolic (23 mm Hg) and diastolic (15 mm Hg) blood pressure	Not reported
Jafar (Jafar TH, Islam M et al. 2010; Jafar TH, Islam M et al. 2011), Pakistan	4023 children and young adults	Parallel group cluster RCT	Home	Reduction in blood pressure using non-drug interventions	90 min health education session (every 3 months)	Face-to-face	Trained community health workers	Group (household)	Not specified	2 years	Change in blood pressure of children and young adults	Systolic BP remained unchanged in the intervention group, but increased by 1.5 mm Hg in the control group while diastolic BP increased by 0.6 (intervention) and	Not reported

Barcelo (Barcelo A, Cafiero E et al. 2010; Barcelo, Cafiero et al. 2010)(Barcelo A, Cafiero E et al. 2010; Barcelo, Cafiero et al. 2010)(Barcelo A, Cafiero E et al. 2010; Barcelo, Cafiero et al. 2010)[19,20]{ Barcelo, 2010 #631;Barcelo A, 2010 #600}[19,20]{ Barcelo, 2010 #631;Barcelo A, 2010 #600}[41, 55][41, 55][42, 56][42, 56][43, 57], Mexico	297 diabetes clinics	Parallel group cluster RCT	Public health facilities	Structured patients education program, foot care, Providers training	3 learning sessions using breakthrough series	Face-to-face	Physicians, nurses, nutritionists, psychologists	Group	Chronic care model	18 months	Quality of diabetes care	2.1 mm Hg The proportion of patients achieving three or more quality improvement goals improved from 16.6% to 69.7% with the intervention	Not reported
Mujica (Mujica V, Urzua A et al. 2010), Chile	51 adults with metabolic syndrome	Parallel groups RCT	Hospital	Structured physical activity and nutrition counselling	Lectures (4 monthly), practicals, printed material	Face-to-face	Physician, nutritionists, physical therapists, psychologists	Group	Not specified	18 months	Cardiometabolic profile	Decreased waist circumference, weight, body mass index, diastolic blood	Not reported

Kisioglu (Kisioglu AN, Aslan B et al. 2004), Turkey	400 adults women	Parallel groups RCT	Hospital	Structured education program by experts on physical activity and weight control	Group based education sessions	Face-to-face	Not specified	Group	Not specified	6 months	Change in blood pressure and body weight	pressure and triglycerides with intervention; but similar proportion of participants achieved a reversion of metabolic syndrome in the two groups	Not reported
												Significant reduction of body weight (but not blood pressure) in the intervention group, with more participants moving from the upper (high risk) categories to the lower ones with the intervention	

