

The effects of preventive counseling followed by remote support via phone on physical activity in patients with high cardiovascular risk

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Background: Education may increase physical activity (PA) in patients (pts) with high cardiovascular (CV) risk.

Objectives: To assess the effects of preventive counseling with focus on diet modification with remote support by phone on PA levels in high CV risk pts.

Methods: This is a randomized controlled study of pts aged 40 to 65 years with high/very high CV risk (Systematic Coronary Risk Evaluation scale [SCORE], $\geq 5\%$) and any 2 metabolic syndrome criteria. Pts were randomized into 2 groups in 1:1 ratio. Intervention group received comprehensive preventive counseling with focus on healthy diet followed by 3 months of biweekly remote counseling by phone (a total of 6 sessions). Control group received usual care including basic preventive counseling. PA was assessed by International Questionnaire on Physical Activity (IPAQ) at baseline, at 6 and 12 months.

Results: A total of 100 pts (women, 80%, aged 59.85 ± 4.47 years) were randomized. Demographics and clinical features were balanced across groups. Despite the study intervention not focusing on PA, total PA, moderate PA and walking significantly increased in the intervention group vs control at 6 and 12 months.

Conclusion: The study intervention provided a significant increase of PA in high CV risk pts.

	Intervention group, mean \pm standard deviation	Control group, mean \pm standard deviation	P for change from baseline
Total physical activities, MET-min/week			
Baseline	1317.94 \pm 1455.4	2029.42 \pm 2811.84	
After 6 months	2217.58 \pm 1813.95***	1793.26 \pm 1863.54	<0.001
After 12 months	2240.2 \pm 1991.47***	1629.48 \pm 1629.02	<0.001
Vigorous physical activities, MET-min/week			
Baseline	92.8 \pm 407.72	220.8 \pm 881.49	
After 6 months	96 \pm 557.08	0 \pm 0	n/s
After 12 months	132.8 \pm 425.66	27.2 \pm 109.15	n/s
Moderate physical activities, MET-min/week			
Baseline	268.8 \pm 455.28	714 \pm 1390.22	
After 6 months	522.4 \pm 570.54***	518.8 \pm 1075.79*	<0.001
After 12 months	766.8 \pm 1176.38**	481.6 \pm 874.97*	<0.001
Walking, MET-min/week			
Baseline	956.34 \pm 1071.49	1094.62 \pm 1344.46	
After 6 months	1599.18 \pm 1404.88***	1294.46 \pm 1208.88	<0.05
After 12 months	1339.8 \pm 1230.51**	1120.68 \pm 1067.09	<0.05

* $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$ for within group comparisons vs baseline