

Smile Healthy to Your Diabetes: Oral Health Focused Health Coaching

Intervention for Diabetes Management

Cinar AB*, Schou L

Institute of Odontology, University of Copenhagen, Norre Alle 20, DK-2200-Copenhagen

OBJECTIVE: To evaluate the impact of an oral health-focused Health Coaching (HC) intervention compared to health education (HE) on oral health and diabetes management among patients with diabetes type 2 (T2DM).

METHODS: This prospective intervention study selected T2DM patients in Turkey (TR) and Denmark (DK) by random sampling. Participants were allocated to HC and HE groups. Selected outcome data were socio-economic status, HbA1C, periodontal treatment need index (CPI), toothbrushing.

RESULTS: At baseline, no statistically significant differences were found between HC and HE groups. Majority of patients in both TR and DK groups had low socio-economic status.

Table1. Socio-economic measures at baseline among Health Coaching and Health Education groups

TURKISH	Health Coaching		Health Education		
N (total =186)*	n	%	n	%	p
Education	74		101		ns
Primary school or less	54		60		
At least middle school (≤ 8-11 years of education)	31		23		
At least university	15		17		
Current employment	77		98		ns
Retired/not working	75		78		
Employed	25		22		
Age (years)	72		92		ns
≤49 years	29		34		
50-59	55		41		
≥60 years	16		25		

DANISH	Health Coaching		Health Education		
	n*	%	n*	%	p
Education	96		78		ns
Primary School up to 10th class	31		4	36	
10 th class (optional)	12		7		
High School	12		13		
Technical school	16		26		
At least university	29		18		
Current employment	111		110		ns
Retired/not working	88		84		
Employed	12		16		
Age	108		86		0.001
≤49 years	36		9		
50-59 years	8		35		
≥60 years	56		56		

The participants who took their HbA1C records both at baseline and post-intervention were included at the analysis.

* (Danish) Weighted sample size; 3:2 weighting ratio for the "coaching: education" groups is used

Post-intervention, there was a reduction at HbA1C in the TR-HC group (6 months follow-up: 9.3%; 2 years follow-up: 2%) and in the DK-HC group (6 months follow-up: 4.8%), ($p < 0.05$) but not in the HE groups (Figure 1). After 6-months follow-up, improvement at CPI and toothbrushing were significantly higher in HC groups ($p < 0.05$). Factor analysis revealed that HbA1C shared the same cluster with CPI in all groups

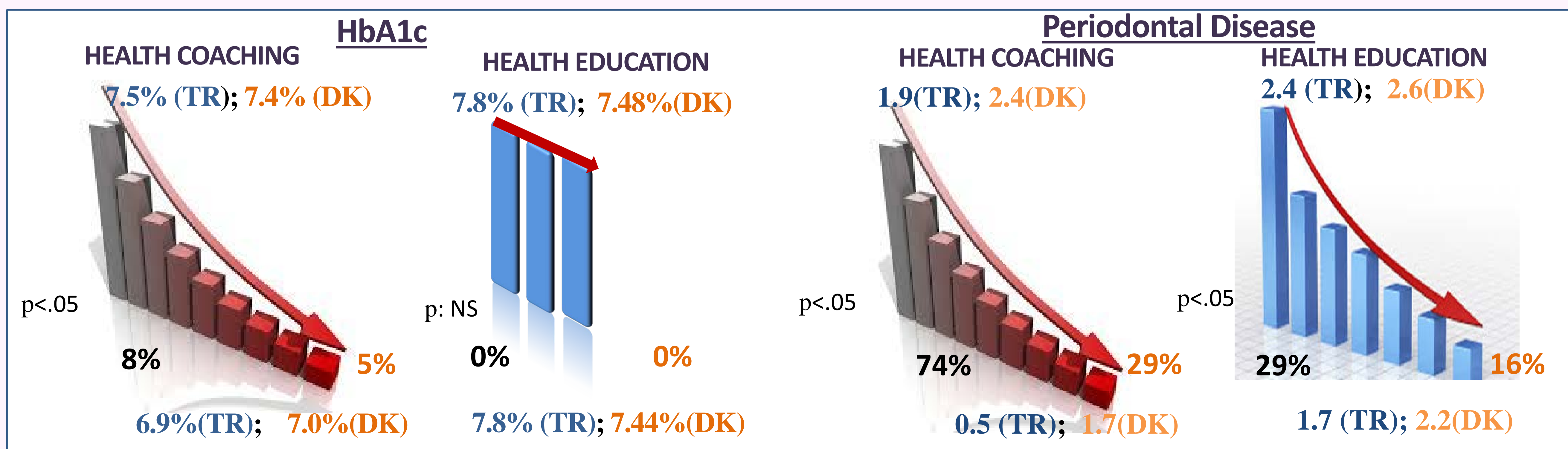


Figure 1. Improvement at clinical measures from baseline to post-intervention in the Health Coaching and Health Education Groups

CONCLUSION: The present findings show that the HC intervention, regardless of nationalities, is more effective than HE at improving HbA1C and CPI. Whether the interaction between CPI and HbA1C a cause or an effect is a topic for further studies.