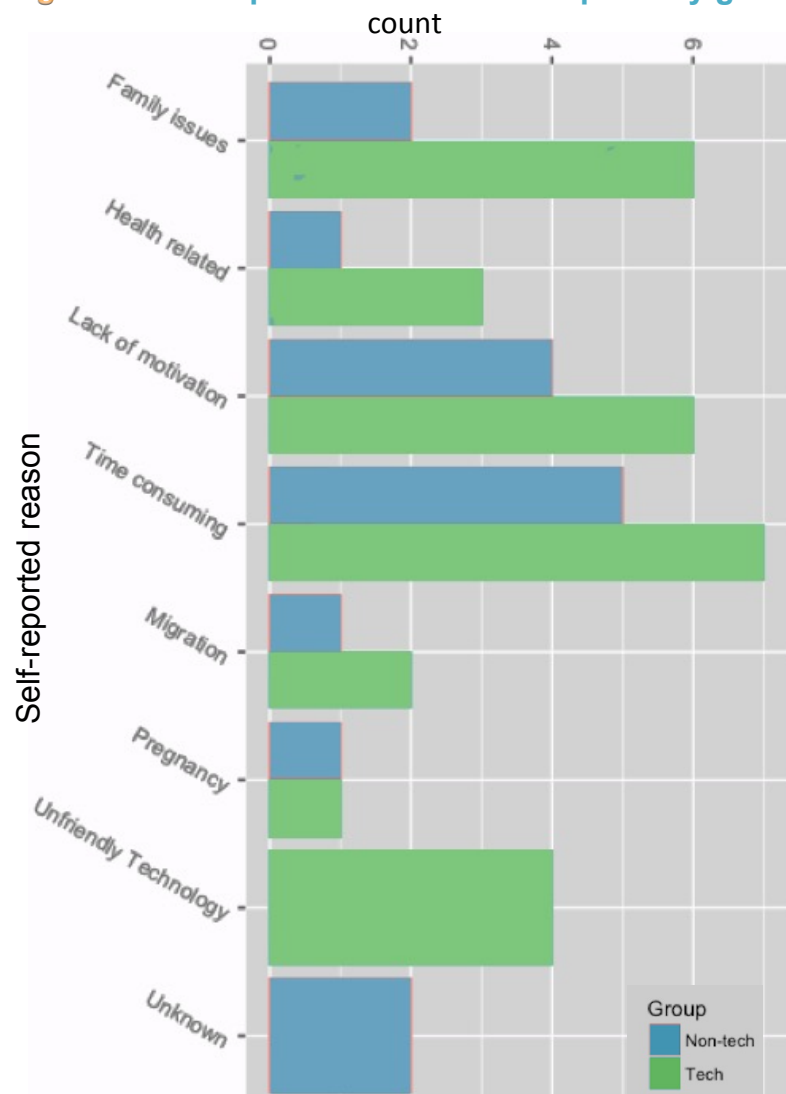


INTENSIFIED TELEMATIC TREATMENT FOR OBESITY - DROP OUT RATES AND PREDICTORS AT 6 MONTHS OF PREDIRCAM2 WEB INTERVENTION

Valeria Alcántara-Aragón¹, Susana Rodrigo-Cano^{2, 6}, Ascension Lupiañez¹, José Tapia^{3,4}, José Iniesta^{3,4}, M José Martínez¹, Carmen Martínez¹, Susana Tenés^{2, 6}, M Elena Hernando^{3,4}, J Francisco Merino-Torres^{2, 6}, Alberto de Leiva^{1,4,5}, Cintia González^{1,4,5}

1.Endocrinology and Nutrition Department, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain, 2.Endocrinology and Nutrition Department, Hospital Universitari i Politècnic La Fe, Valencia, Spain, 3.Bioengineering and Telemedicine Group, Universidad Politécnica de Madrid, Spain, 4.Centro de Investigación Biomédica en Red en Bioingeniería, Biomateriales y Nanomedicina (CIBER-BBN), Spain, 5.Eduab-HSP, Universitat Autònoma de Barcelona 6.Unidad Mixta de Investigación Endocrinología, Nutrición y Dietética. Instituto Investigación Sanitaria La Fe-Universitat de Valencia, Spain

Figure 1. Self-reported reasons of drop-out by group



BACKGROUND: PREDIRCAM2 is a web-platform for obesity treatment and follow-up. A multicenter randomized-trial evaluates its effectiveness in obesity treatment and cardio-metabolic-risk prevention. Participants were randomized to an intensified-technological-intervention (TI) supported by PREDIRCAM2, or a traditional non-technological face-to-face-intensified-intervention (NTI). Both groups receive one year follow-up, 12 appointments, 4 exclusively telematic in TI group.

METHODS: Drop-outs were counted from the first week of intervention until 6 months to assess global, differential rates, and reported reasons. Binomial logistic regression was used to detect potential predictors and calculate odds ratio, for the sample as a whole and by subgroups. Analysis was performed using RStudio v1.0.153.

RESULTS: Overall drop-out rate was 24.6% (45/183), differentials: 31.9% (29/91) TI, 17.4% (16/92) NTI (p=0.023). Figure 1 shows the reasons for drop-out and table 1 the odds ratio for predictors of drop-out.

Table 1. Odds ratio for predictors of drop out at 6 months

Variable	Whole sample analysis (n = 183)			Subgroup analysis					
	OR	95% CI	p value	Non-technological intervention group (n= 92)			Technological intervention group (n= 91)		
				OR	95% CI	p value	OR	95% CI	p value
Age (years)	0.9577	0.906 - 1.009	> 0.05	0.9190	0.835 - 0.997	= 0.05	0.9612	0.875 - 1.050	> 0.05
History of Obesity (years since diagnosis)	1.0100	0.979 - 1.042	> 0.05	1.0403	0.975 - 1.118	> 0.05	1.0053	0.966 - 1.047	> 0.05
HbA1c at baseline (%)	2.4441	0.694 - 8.701	> 0.05	7.6712	0.426 - 231.6	> 0.05	1.8303	0.338 - 10.46	> 0.05
BMI baseline kg/m ²	0.3073	0.171 - 0.508	<0.001	0.4053	0.167 - 0.834	< 0.05	0.1855	0.064 - 0.428	< 0.001
BMI at 3 months kg/m ²	3.2093	1.728 - 6.849	<0.001	1.3165	0.351 - 5.081	> 0.05	5.6975	2.328 - 21.36	< 0.01
BMI at 6 months kg/m ²	1.0780	0.675 - 1.589	> 0.05	1.7905	0.686 - 5.332	> 0.05	1.0407	0.502 - 1.711	> 0.05
Dietary prescription at baseline (kcal)	1.0001	0.998 - 1.002	> 0.05	1.0010	0.998 - 1.005	> 0.05	0.9987	0.995 - 1.002	> 0.05
Physical activity prescription at baseline (kcal)	1.0006	0.999 - 1.001	> 0.05	1.0001	0.999 - 1.001	> 0.05	1.0007	0.999 - 1.002	> 0.05
Married (Yes)	0.6734	0.274 - 1.642	> 0.05	0.3749	0.068 - 1.811	> 0.05	0.9293	0.225 - 3.886	> 0.05
Fixed shift schedule (Yes)	0.9779	0.411 - 2.359	> 0.05	1.5370	0.333 - 7.950	> 0.05	0.5072	0.129 - 1.844	> 0.05
Personal history of depression (1)	1.7301	0.341 - 8.527	> 0.05	7.2825	0.226 - 171.1	> 0.05	1.023	0.118 - 9.409	> 0.05
Personal history of osteomuscular lesions (1)	3.3595	1.138 - 10.163	< 0.05	4.2157	0.617 - 30.31	> 0.05	5.0831	1.013 - 32.92	> 0.05
Previous treatments with technology/gadgets (1)	0.8508	0.307 - 2.269	> 0.05	1.003	0.169 - 5.438	> 0.05	0.4925	0.099 - 2.124	> 0.05
Reported anxiety towards food/eating (Yes)	1.2029	0.448 - 3.349	> 0.05	2.3893	0.424 - 18.34	> 0.05	1.1903	0.274 - 5.358	> 0.05

CONCLUSION: The TI group had significantly more drop-outs. Most frequently reported reasons were not directly related to technology. An adequate selection of participants and friendlier technology could improve TI adherence.