Supplemental materials for

Orrego C, Perestelo-Pérez L, González-González A, et al. A virtual community of practice to improve primary health care professionals' attitudes towards patient empowerment (e-MPODERA): a cluster-randomized trial. *Ann Fam Med*. 2022;20(3):204-210.

Supplemental Appendix 1. Sample size specifications

In order to detect a between-group difference of 0.2 points in the primary outcome (PPOS), assuming a standard deviation of 0.50 (Hoffmann, Bennett, Tomsett, & Del Mar, 2014), an alpha error of 0.05, and a power of 80%, it was calculated that 200 healthcare professionals would be needed.

Due to the cluster design, we calculated an inflation factor using the formula IF = 1+(m -1)ρ, where m represents cluster size (we assumed an average of 5 professionals per practice), and ρ is the intraclass correlation coefficient, assumed to be 0.03, Grimshaw, Elbourne, 2004)

Based on the resulting inflation factor of 1.12, the required sample size was increased to 224. To cover a loss to follow-up of 20% of patients over the 12 months, it was further increased to 270 (135 professionals per group) to be recruited from 54 practices (270/5). Healthcare professionals were expected to recruit 1,382 patients (assuming 20% loss to follow-up), which is the number required to detect a mean difference between groups of at least 4 points on the PAM at 12 months [14] based on the same assumptions for type I and II errors as those made for the professionals' sample calculation.

- Hoffmann TC, Bennett S, Tomsett C, Del Mar C. Brief training of student clinicians in shared decision making: A single-blind randomized controlled trial. *J Gen Intern Med*. 2014;29(6):844-849. doi:10.1007/s11606-014-2765-5

- Campbell MK, Grimshaw JM, Elbourne DR. Intracluster correlation coefficients in cluster randomized trials: empirical insights into how should they be reported. BMC Med Res Methodol. 2004;4:9. doi:10.1186/1471-2288-4-9

Supplemental Tables 1 and 2. Predictors of losses and professionals' activity in the vCoP.

Supplemental Table 1. Predictors of Losses at Follow-Up			
Professionals	**Completers** **n = 253**	**Dropouts** **n = 68** **(21.2%)**	**P-value[1]**
Intervention group, n (%)	134 (53.0%)	49 (72.0%)	0.025
Nurses, n (%)	83 (45.4%)	48 (34.8%)	0.639
Age, mean (SD)	47.4 (8.44)	49.9 (9.95)	0.131
Female, n (%)	141 (77.0%)	102 (73.9%)	0.524
Years of experience, mean (SD)	21.5 (8.27)	23.7 (10.6)	0.053
Years in primary care, mean (SD)	17.6 (8.54)	18.1 (10.3)	0.652
Daily caseload (n of patients, mean (SD)	30.0 (11.6)	27.0 (9.84)	0.157
PPOS Sharing	3.97 (0.72)	3.77 (0.75)	0.046
PPOS Caring	4.91 (0.52)	4.74 (0.57)	0.039
Professionals (intervention group)	**Completers** **n = 134**	**Dropouts** **n = 49** **(26.8%)**	**P-value[1]**
Accessed to the platform at least once, n (%)	126 (94.0%)	39 (79.6%)	0.008
Number of logins, mean (SD)	24.12 (32.5)	6.88 (14.3)	0.001
Patients	**Completers** **n = 1442**	**Dropouts** **n = 479**	**P-value[1]**

		(24.9%)	
Intervention group, n (%)	764 (53.0%)	331 (69.1%)	0.301
Age, mean (SD)	64.1 (12.4)	66.8 (12.0)	0.037
Female, n (%)	748 (51.9%)	226 (47.2%)	0.503
Secondary or University studies, n (%)	659 (45.7%)	211 (44.0%)	0.065
Married/partner, n (%)	1025 (71.1%)	338 (70.6%)	0.447
Living alone, n (%)	220 (15.2%)	84 (17.5%)	0.662
Born outside Spain, n (%)	117 (8.1%)	54 (11.3%)	0.313
Duration of main disease (years), mean (SD)	11.5 (7.40)	12.1 (7.23)	0.126
PAM, mean (SD)	65.3 (15.3)	65.5 (21.4)	0.955

[1] P-values from univariate multilevel logistic regression models, with random effects for primary care practice in the case of professionals, and for professional and primary care practice in the case of patients.

PAM: Patient Activation Measure; PPOS: Patient-Practitioner Orientation Scale.

Supplemental Table 2. Predictors of Professionals' Activity in the vCoP.		
	Access to the vCoP (yes/no) (n = 183)	Number of logins (n = 165)
	B (95%CI); P-value	B (95%CI); P-value
Profession (nurse vs. physician)	0.86 (-0.29, 2.02); 0.145	-3.13 (-12.5, 6.20); 0.511
Age	0.01 (-0.04, 0.07); 0.616	0.21 (-0.32, 0.74); 0.434
Sex	0.57 (-0.57, 1.71); 0.325	1.73 (-9.55, 13.0); 0.764

Years of experience	0.02 (-0.04, 0.08); 0.558	0.21 (-0.34, 0.75); 0.458
Years in primary care	0.05 (-0.01, 0.12); 0.115	-0.05 (-0.59, 0.48); 0.846
Daily caseload	-0.04 (-0.09, 0.01); 0.160	-0.23 (-0.66, 0.21); 0.308
PPOS Sharing	0.70 (-0.06, 1.46); 0.071	2.45 (-4.03, 8.94); 0.459
PPOS Caring	1.06 (0.09, 2.03); 0.032	7.14 (-2.09, 16.4); 0.129

NOTE: Data are unstandardized coefficients (95%CI) and p-values from univariate multilevel logistic (access) or lineal (number of logins) regression models, with random effects for primary care practice.

PPOS: Patient-Practitioner Orientation Scale; vCoP: virtual community of practice.